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News in Brief

The necessity for developing the home market for fruit is being recognised by growers.—Standardise: advertise.

The C.O.D., Brisbane, is conducting a campaign to advertise Papaws.

Early Australian Apples in U.K. were immature and pitted, writes Mr. G. W. Brown, regretfully from London.

The Valencia Orange crop in N.S.W. is heavy this season.

Mushroom growing on a commercial scale is described in this issue. This subject is continued from April and May "Fruit World."

The serious menace of the fruit fly in N.S.W. was mentioned at several fruitgrowers' conferences in May.

Manurial tests with Beans are described in this issue.

Two new Tomatoes of promise are Marhio and Low Branch, states Mr. John Douglass, of the N.S.W. Dept. of Agriculture.

The necessity for providing cross-pollination in planting and re-working trees is emphasised by Mr. A. G. Strickland, M.Ag.Sc., Horticultural Research Officer, Vic. Dept. of Agriculture.

Peaches and Apricots, however, are largely self fruitful and can be planted in solid blocks.

Fruitgrowers should have a hive of bees for every one or two acres of orchard—to assist cross pollination.

Many Citrus growers in N.S.W. appear to disagree with the policy of the N.S.W. Fruitgrowers' Federation in regard to export control and an equalisation fund. A Citrus Growers' Defence Association has been formed.

Mr. A. S. Harrison, of the I.F.M. Co., Melbourne, revealed high qualities as chairman in handling the recent meeting to discuss the altering of the constitution of the V.F.M.A. He was cordially thanked for his services, and in reply he thanked those present for their responsiveness, especially when it came to guiding the meeting through some difficult passages.

It has been proposed that the next meeting of the Australian Apple and Pear Export Council (at Melbourne) be held during the first week in October. It is necessary to make early reservation of accommodation, because of the Centenary celebrations.

Harmony prevailed at a representative conference at Melbourne on May 25, when export fruit growers decided on the continuance of the Victorian Fruit Marketing Association as a joint organisation of growers and shippers.

Personal

Mr. Fred Thomas, M.A., who was until recently an orchardist at Bunyip, Vic., has accepted the position of secretary of the Victorian Teachers' Union. Prior to taking up fruitgrowing, Mr. Thomas was a teacher in the Education Department. During his fruitgrowing career, he was always a willing helper in the organising of the industry.

Capt. D. B. Halhed, of Merbein, has been appointed chairman of the directors of the Victorian Central Citrus Association, and the Mildura district has obtained additional representation on the board by the election of Mr. A. E. Cameron, of Red Cliffs.

Mr. W. A. Tate, of Greytown, N.Z., Cherry grower and cool store proprietor, passed through Young and other districts of N.S.W. during May, after visiting the East in an endeavor to open up fresh markets for N.Z. fruit.

Mr. W. N. Twiss, secretary of the South Australian Dried Fruits Board, who is also president of the Australasian Institute of Secretaries, was entertained on his recent visit to Melbourne by the Victorian Council of the Secretaries' Institute.

Dr. G. H. Cunningham, Mycologist, Plant Research Station, Palmerston North, N.Z., is now on a visit to Australia. Dr. Cunningham recently carried out a series of investigations with spray materials, the result of which has meant a substantial saving in the costs of spraying.

Mr. H. E. Napier, who until recently was manager of the N.Z. Fruitgrowers' Federation, is spending some weeks in Australia. He is interested in the marketing of colloidal sulphur, a British product, which is reported to be remarkably successful in combating fungus diseases—including Brown Rot.

Mr. A. W. Schwennesen has been appointed manager of the Victorian Central Citrus Association. For several years Mr. Schwennesen was the appreciated president of the V.C.C.A.

Mr. J. A. Parkes, who recently retired from his position as manager of the Victorian Central Citrus Association, is continuing to act in an advisory capacity to the Federal Citrus Council.

By his outstanding ability and genial personality Mr. Parkes has always been a force for improving the lot of the Citrus grower. He is esteemed by all sections of the community.

Passionfruit for the East.—About one dozen cases of Passionfruit, pre-cooled at about 35 degrees F., before shipment, was consigned to Java and Singapore on May 16.

Selling Fruit by Number

Old-fashioned Method Condemned of Selling Apples, Pears, Peaches and Large Fruits by Weight.

Victorian Retailers Desire the "Count" System.

LAST SEASON the Apple Publicity Committee, in co-operation with the Melbourne and Metropolitan Fruiterers' Association, endeavoured to secure the selling of Apples by number instead of by weight. It was also apparent that the desire that Pears, Peaches, and other large fruits, should be sold by count instead of by weight.

Some success was obtained, but the old system of selling by weight was entrenched, and, as the effort was not sustained, many who adopted the "count" system drifted back into the old-fashioned, cumbersome and wasteful method of selling by weight.

It is welcome news that the Retail Fruiterers' Association is again moving in this matter: in this they will have the support of far-seeing growers.

Should an association of growers and traders be formed to deal with local marketing matters—as the V.F.M.A. does with export—this is one item which could profitably be included—also the matter of advertising to increase fruit consumption.

Trade with New Zealand

Big Conference at Canberra This Month. Embargoes Will be Discussed.

ARE QUARANTINE EMBARGOES BEING USED AS TRADE BARRIERS?

This question will be debated at the Scientific conference at Canberra in mid-June. Scientists from New Zealand and Australia will be present. The whole facts regarding quarantine embargoes affecting Australia and New Zealand will be examined impartially.

At the present time there is friction and misunderstanding between the Commonwealth and the Dominion on the subject of mutual interchange of products.

It is hoped that much good will come out of these discussions.

It goes without saying that quarantine restrictions should not be used as trade barriers. Can the scientist give the necessary reassurance to primary producers, and lead the way to better understanding?

The result should be mutually beneficial.

"Make every post a winning post," urges the strenuous man. But too many are inclined to make the post a verandah post, to lean against.

For Greatest Protection

The correct oil base makes all the difference !

THE branch shown on the right in the diagram above, indicates how Gargoyle Red Spraying Oil spreads its protective film—EVENLY and LASTINGLY.

Not only is Gargoyle Red Spraying Oil a safeguard against re-infestation, but it is also an "emollient," giving elasticity to the bark and improving the general health of the tree.

Gargoyle

Red Spraying Oil

VACUUM OIL COMPANY PTY., LTD.

Necessity For Cross Pollination.

Provide for This in Planting and Re-working Trees.

by A. G. Strickland, M.Ag.Sc.

THE NECESSITY for providing adequate facilities for cross-pollination was stressed by Mr. A. G. Strickland, M.Ag.Sc., Horticultural Research Officer, Victorian Dept. of Agriculture, in a broadcast talk over 3AR, Melbourne, on May 22. A summary is as follows:—

The benefits of cross-pollination were most noticeable when unseasonable conditions were present or when a thrips plague came as in 1931. The subject was so important, however, that on no account should it be lost sight of.

Peach and Apricot varieties were nearly all capable of setting maximum crops without cross-pollination; these could thus be safely planted in solid blocks.

The majority of Apple, Pear, Cherry, Plum and Almond varieties were partly self unfruitful: Cherries and Plums particularly needed pollenisers. Apples and Pears in favorable seasons set fruit with cross-pollination, but during an unfavorable season, when the crop was a partial failure, the grower often blamed the season. **Whereas the lack of cross-pollination was mostly to blame.**

For pollination purposes the trees should be in bloom at the same time, for instance, Jonathan (early) would not pollinate Rome Beauty (late). But not all varieties which bloomed simultaneously were suitable as some had non-viable pollen.

Jap. Plums and European Plums were unsuitable for pollenising each other.

Apples and Pears set best when varieties were interplanted. **Lack of adequate pollination was often evidenced by a heavy drop of young fruits.**

If fallen fruits contained five or more seeds, the cause was probably nutritional or was due to weather conditions; but if the fallen fruit contained few or no seeds, lack of pollination was indicated.

With the exception of varieties which produced weak non-viable pollen—such as Gravenstein and Reinnette—any Apple may be used to pollinate another. Pears blooming simultaneously pollinated each other.

Generally Cherries, Plums and Almonds were more self unfruitful than Apples and Pears. Some few Plums and Cherries were fairly productive without cross-pollination, but all sweet Cherries and many Jap. and European Plums would not crop freely unless cross-pollinated.

Considerable data concerning blooming dates and the value of different varieties from a pollinating standpoint had been obtained and the Dept. of Agriculture would gladly assist growers to select suitable pollenisers.

Bees Are Necessary.

For distributing pollen, wind and other agencies were unimportant. In Victorian orchards the domesticated honeybee was the main agent in pollen transfer. A hive of bees for every one or two acres was reasonable.

If in any grower's experience bees had been scarce in previous years, arrangements should be made for some hives before next spring.

In mingling varieties, no tree should be more than two trees distant from pollenising tree. Thus there should be alternating double rows of each of two varieties; otherwise plant a pollenising variety as every third tree in every third row.

In re-working to provide for pollination, this method of using every third tree in every third row was satisfactory. In other cases, one or two limbs of every tree in the patch could be grafted over to a suitable polleniser.

As much re-working was going on now because of the limited number of export varieties, growers should not rush blindly into re-working, but should take stock of the orchard and examine the varieties from a pollination standpoint and arrange accordingly.

Canned Fruits Export.

The Canned Fruits Control Board has issued a statement setting out particulars of exports of canned fruits from Australia to various destinations from the commencement of the season (January 1) to April 30, 1934. The following figures are given (in dozen tins)—Total export, 959,353 (30-oz.), 6,690 (21-oz.), 325,613 (16-oz.). This was made up of Apricots—118,097 (30-oz.), 47,490 (16-oz.); Peaches — 538,990 (30-oz.), 173,256 (16-oz.); Pears — 255,806 (30-oz.), 100,471 (16-oz.); Pineapples—46,460 (30-oz.), 6,690 (21-oz.), 4,396 (16-oz.). The heaviest export was to U.K., being 916,720 (30-oz.), 1,500 (21-oz.), 304,237 (16-oz.).

Additional quantities (in dozens):—10-oz. Apricots, 272 to East; Peaches, 16 to East, 4 to miscellaneous; Pears, 568 to East, 8 to miscellaneous. 18-oz.: Apricots, 1,818 to Canada; Peaches, 512 to East, 4,305 to Canada; Pears, 300 to Canada. 104-oz.: Apricots, 450 to Canada; Peaches, 753 to Canada; Pineapples, 20 to U.K., 5 to N.Z., 2,273 to Canada.

According to a report issued by the Minister of Commerce in mid-May, the value of exports of canned fruits from Australia for the first nine months of the present financial year totalled £554,836. This represents an increase of £187,228 above the value of shipments for the same period in the previous year.

CANNED FRUIT SALES.

Henry Jones Co-operative Ltd.

At the half-yearly meeting of Henry Jones Co-operative Ltd., held on May 22, it was announced that an interim dividend of sixpence a share would be payable on June 1.

The managing director (Mr. A. W. Palfreyman) said the keenest competition was still obtaining in the industry, and most manufactured lines were selling at or below cost. This had been brought about by the law of supply and demand. One gratifying feature, however, was that during the last five months his firm had sold more canned fruits than was the case during the previous two years. This was eminently satisfactory, as heavy stocks had been disposed of, and when the end of the year arrived the firm would have clear floors—a position which would benefit not only the company, but the fruit growers themselves.

Russian Fruit Industry.—Several subscriptions have recently been received for the "Fruit World" from Russia. Particular interest has been expressed in the articles on soils and manuring by Mr. F. M. Read, of the Victorian Department of Agriculture.

SPRAY HOSE

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HARDIE RUBBER CO. LTD.

"EVERY INCH AUSTRALIAN"

Obtainable at All Stores.

Frost Prevention by Orchard Heating

Valuable Tests in Sth. Australia :: Why Orchard Heating is possible :: White and Black Frosts, also "Freezes" Described :: Importance of alarm System :: Orchard Heating a Sound Business Proposition

(BY J. B HARRIS, DIP. HORT., HORTICULTURAL INSTRUCTOR STH. AUST. DEPT. OF AGRICULTURE

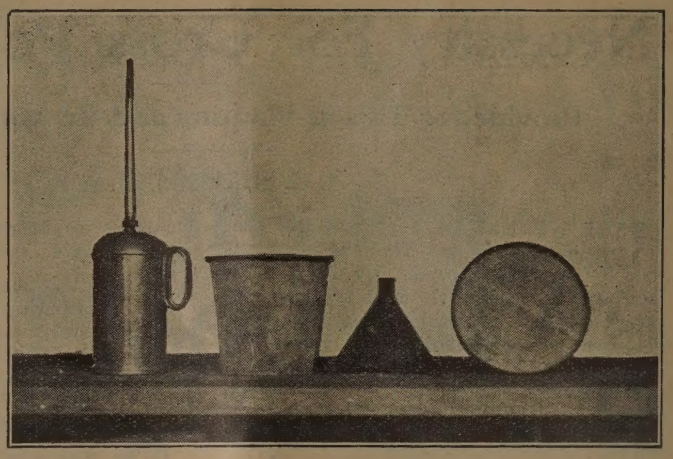

Fig. 2.—Liquid fire torch & burning pail with flame spreader & lid.

OWING TO LOSSES of fruit crops in South Australia through spring frosts, special study has been given to the prevention of frosts through orchard heating. This subject is of interest throughout Australia, hence the publication of this information, which comes from Mr. J. B. Harris, of the Sth. Australian Dept. of Agriculture, details being summarised from the "Sth. Aust. Journal of Agriculture," from which the paper, the article and illustrations are acknowledged with appreciation.

* * *

"Smudging," or the generation of dense smoke, was tried, and, while inconclusive, Mr. Harris thinks it should not be condemned as useless under certain conditions.

Actual orchard heating, however, was successful.

In one case, Mr. S. Plush, of Lights Pass, saved a crop of Apricots by burning coal, wood and kerosene in burners: that was in 1930.

* * *

After several conferences, the South Australian Frost Combating Committee was formed, the executive consisting of Messrs. P. B. and F. W. Boehm, L. Plush, K. Robinson (secretary), and J. B. Harris (Dept. of Agriculture). Information was sought from various places: one report came to hand regarding the success of Mr. J. A. Egan, of Gonn Crossing, Vic., who used kerosene tin heaters and briquettes in 1929, and saved 3½ acres of Mandarins from frost.

* * *

Tests in South Australian orchards were arranged and carried out, at Mr. P. B. Boehm's orchard at Light's Pass. Regarding this, Mr. Harris writes:—

Before proceeding to a discussion of the test, it may be well to consider briefly the various frost conditions which occur, and such as are known as "white frost," "black frost," and a "freeze." The condition, which is common to all these frosts, whatever may be the term by which they are locally described, is a lowering of the atmospheric temperature, within a few feet of the ground level, or at that and greater altitudes, to 32 degrees F., or lower. This condition is essential to a frost of any kind, and anything which will prevent such a condition will prevent a frost of any sort. This latter may seem to many persons an obvious statement of fact, but, within the writer's experience there are many growers who contend that nothing can be done against a black frost, whereas the test herein described showed evidence that heating (such as from 2.45 a.m. to 6.30 a.m. on October 26) is effective against a black frost, as it is against a white or hoar frost. A white frost, so named from the particles or frozen moisture or dew, which are seen deposited on all objects in the frosted area differs only from a black frost inasmuch as in the case of black frost there is too little moisture in the atmosphere for the moisture to be frozen and deposited as in the case of a white frost.

A black frost

usually follows a white frost, where two frosts occur on consecutive nights, the dew having been frozen on the first night, and the temperature not having risen sufficiently on the following day to vaporise the moisture, and thus recharge the atmosphere with moisture to be deposited as white frost. Thus a black frost, by reason of the fact that it frequently follows a white frost, is often assumed to be more destructive in its effect, whereas what is really seen after a black frost is frequently the cumulative effect of two frosts. Such a condition as that just described occurred at Light's Pass during the early morning hours of October 25 and 26. The frost on the 25th being a white frost, and that on the 26th a black frost, although the minimum temperature reached on the 25th, i.e., 28.5 deg. F. was one degree lower than the minimum reached on the 26th, i.e., 29.5 degrees F.

In the case of local frosts, such as those just referred to, the lowering of temperature is caused by radiation of the earth's heat, and consequent inversion of the strata of atmosphere near the earth's surface. This class of frost usually occurs in the early hours of the morning, say, between 2 a.m. and 6 a.m. It is the usual cause of damage in this district, and consequently the more expensive form of heating, as used in the case of a "freeze" lasting throughout the night, is not necessary.

A "freeze" is the term used on the Pacific Coast to describe the type of

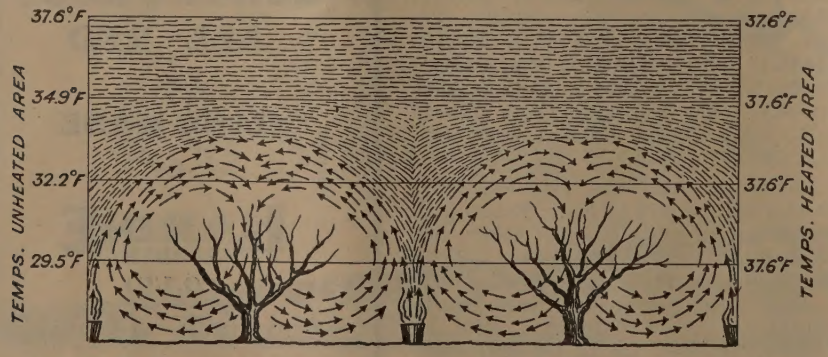

Fig. 1.—To illustrate the path of heated and gradually cooling air currents. (Adapted from U.S.D.A. Bulletin 1588.)

frost which follows a cold, windy day with a cloudy sky, the day conditions being such that the earth and adjacent atmosphere receives little heat from the sun, and consequently the earth has little heat to radiate and thus warm the atmosphere during the night. The result of this is that the little surplus heat of the earth is exhausted by radiation to the atmosphere late in the afternoon or early evening, the air adjacent to the earth then becomes cold by atmospheric inversion, and lack of radiation from the earth, and a frost results early in the night, which will probably last till sunrise or till the advent of a warm wind.

The severe frost which destroyed the crops in the Murray Valley in 1927 was in the nature of a freeze.

Why Orchard Heating is Possible.

It will also be well to consider what is meant by "radiation," and by "atmospheric inversion," or "air drainage."

All persons who have warmed themselves at a fire have in so doing absorbed heat rays, which are radiated by the fire during the process of burning; the body which has absorbed the heat rays cannot, however, retain them indefinitely and thus in turn it radiates heat to the surrounding atmosphere. Similarly, the earth exposing itself to the sun's rays during the day time absorbs heat rays from the sun, and becomes warm, the degree of warmth varying according to the kind of earth, and its moisture content, and the amount of sunshine. All substances thus exercise the power of absorbing heat from any warmer substance with which they come in contact, and, vice versa, they transmit heat to cooler articles with which they come into contact. In considering this matter in its relation to orchard and vineyard heating we find that the earth, and more particularly the surface earth, is absorbing heat from the sun from sunrise till sundown. Similarly, the atmosphere is absorbing heat from the sun, although the temperature of the atmosphere is not so great near the earth's surface as is the temperature of the earth itself, because the atmosphere does not absorb heat so readily. Thus, by about 3 p.m. on an October afternoon the earth's surface temperature is greater than that of the air with which it is in contact, and, consequently, the earth proceeds to give out or "radiate" heat to the surrounding atmosphere until such time as the temperature of both is equalised.

Atmospheric inversion or "air drainage" results.

from the expansion of matter which takes place when the matter is heated, the result being that the density, or weight per given volume, decreases, i.e., the substance becomes lighter per unit of bulk when heated. Thus, when the air in contact with the earth's surface is heated it expands and becomes lighter than other air not so directly heated, and which lies above it; the natural result of this is that the heavier cold air falls to the earth's surface, changing place with the warmer air, and thus we have atmospheric inversion, resulting in the air, say, 30 ft. above the earth's surface being measurably warmer than air at the earth's surface. This tendency of the earth to radiate its heat in the late afternoon, evening, and during the night at a greater rate than it is receiving heat from the sun (in order to heat the air near its surface), and the tendency of the air thus heated to be displaced by the colder air immediately above it (so bringing cold air into conjunction with cold earth), is the cause of the frosts which we have to combat.

Although all frosts are more or less due to radiation, the severe "freezes" have as a large contributing factor insufficient absorption of sun heat as a result of cloud and cold winds during the daytime. Evidence of air inversion or atmospheric drainage or the tendency of cold heavy air to drift to lower levels is frequently seen in vineyards planted on sloping land or on a hillside which merges into level lower ground, where the vines on the low level are cut by frost and those above a certain clearly defined level on the higher ground escape. Many growers are also familiar with the phenomenon that vines on very recently cultivated land are more liable to frost injury than others on land not so cultivated; this would appear to be due to the recent cultivation affecting the rate of heat radiation.

Summarising the points of absorption and radiation of heat and temperature inversion we conclude that—

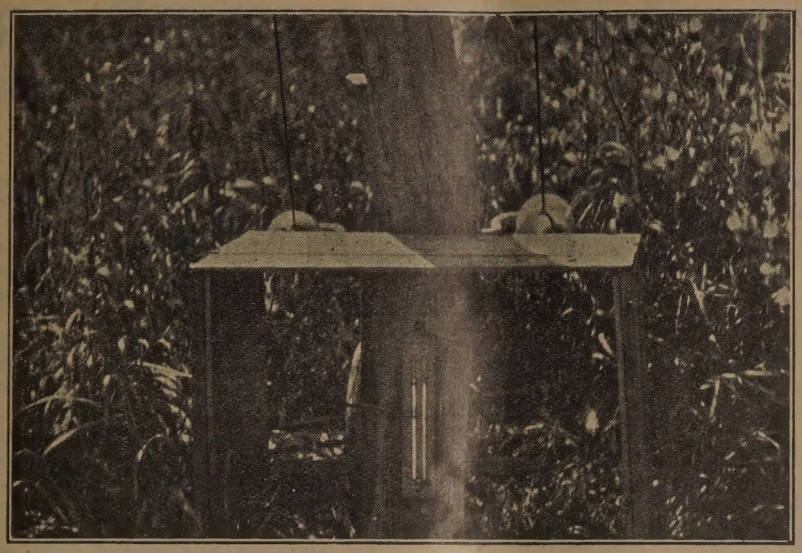

Fig. 3.—U tube thermometer, showing connections to electric bell alarm.

The earth and the atmosphere receive heat from the sun's rays during the day time.

The earth absorbs more heat and gets hotter than the air.

The earth gives heat to the air which is in contact with it.

The earth thus during the night time gives out more heat than it receives and thereby becomes cold.

The air which is heated by the earth is displaced upwards by the falling of the heavier, cooler air above it.

Thus cold air comes into contact with cold earth and where the action continues long enough a frost results.

It should be noted that the air warmed near the earth's surface will only rise through colder air; and will not rise, but will tend to mix when it meets with air of equal temperature until it becomes cool or displaces cooler air; this results in a mixing of the stratum of air near the earth's surface, which is most easily illustrated when the heat is generated at given points as in orchard heating (see Fig. 1).

* * *

Orchard heaters and torches were obtained. The Shell Oil Co. kindly donated two samples of oil which they considered would be suitable, namely "fuel" oil and "solar" oil. Experiments showed "fuel" oil to be the more suitable. The Dept. of Agriculture provided some heaters, torches, thermometers, and frost alarm bell.

* * *

Continuing, Mr. Harris gives full details of the temperatures of the heated and check plots. When frosts occurred, the heaters raised the temperature above 32 deg., and the crops were saved.

(To be continued next month.)

VICTORIAN FRUIT EXPORT

Growers Favor Continuance of V.F.M.A. as a Composite Organisation

Harmonious Conference Settles Vital Problem.

RECENT HAPPENINGS in the fruit industry in Victoria, especially as regards the export trade, made it necessary for the position to be clarified as to the continuance of the Victorian Fruit Marketing Association,—either as a purely growers' body or as a composite organisation.

The whole aspect was discussed with frankness and good feeling at a conference at Melbourne on May 25, and when the final vote was taken there were no dissentients as to the continuance of the V.F.M.A. as a joint organisation of growers and shippers.

A report of the meeting is as follows:—

A meeting of representatives of fruitgrowers' associations, convened by the Victorian Fruit Marketing Association, was held at the board room, Commercial Travellers' Association, Melbourne, on Friday, May 25, 1934. Delegates were present as follows: Southern Pear Packing Co., F. Moore, Noonan; Doncaster Fruitgrowers' Association, T. H. Petty, E. Thiele, E. H. Zerbe; Northern Victorian Fruitgrowers' Association, J. B. McDonald, S. P. Cornish; Peninsula, J. Carpenter, G. H. Sprague, and F. Unthank; Southern Fruitgrowers, W. A. Thiele, V. Lawford; Harcourt, K. V. Eagle, G. Douglas, J. H. Lang; Gippsland Fruit Marketing Association, J. W. Bailey, W. H. Carne, H. G. Colombie; East Burwood, G. C. Karnaghan, G. Mock, F. Beet; Cool Stores' Association, J. J. Tully, L. Cole, J. G. Aird, together with members of the executive of the V.F.M.A.—W. A. Webb, C. J. Parnham, F. Cave, J. W. Barker, C. H. Jost, J. B. Mills, A. S. Harrison, F. R. Mellor, W. P. Hutchinson. Others in attendance were H. V. Wilson (Harcourt Fruit Supply), E. Russell, F. J. Andrew, Messrs. J. M. Ward, E. Meeking (Department of Agriculture), and the secretary, R. E. Boardman.

Mr. A. S. Harrison was elected chairman.

The meeting was in session from 11 a.m. till 4.30 p.m. Every aspect was thoroughly discussed in a frank and friendly manner. Mr. McDonald, Goulburn Valley, while appreciating the assistance of shippers, moved for an association of growers only, but with shippers to be co-opted in an advisory capacity. All the shippers present spoke by invitation and offered every assistance should the growers desire an association of growers only. Appreciative references were made to the good work already accomplished, also that much work was awaiting attention.

Mr. McDonald's motion was lost.

Delegates brought forward proposed amendments to the constitution. On the motion of Messrs. W. A. Thiele and C. H. Jost, it was decided:

"That in the opinion of this meeting it is desirable that the shippers remain in the Association."

It was decided to refer to a committee the several proposed amendments to the constitution.

SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

The monthly meeting of the executive of the South Australian Fruit Marketing Association was held at Adelaide on May 25. There were present Messrs. H. J. Bishop (chairman), R. A. Cramond, E. S. Mason, A. O. Peterson, J. B. Randell, H. N. Wicks, A. R. Willsmore, P. R. B. Searcy, G. Quinn, H. J. Bishop, G. W. Selth, M. Vickers, and E. W. Mills (secretary).

Pear Packing. Secretary reported that 21 cases of Pears had been received by Government Produce Department from Blackwood Orchard for the Pear packing competition at Royal Show in October: Mr. T. Playford had advised that the Minister had agreed to provide free storage.

Apple Purchase Contract. Mr. Searcy submitted draft of proposed Apple purchase contract for circulation and subsequent presentation to Apple and Pear Export Council.

Letters were received from the Apple and Pear Export Council re Miller patent case, advertising in U.K., French quota, Tasmanian representation on council, and co-operation with New Zealand.

Fruitgrowers' Relief Act. The Minister for Agriculture wrote setting out conditions for distribution of grant, and stating the investigation committee was Messrs. J. B. Randell, H. N. Wicks, A. O. Petersen, and G. A. W. Pope. Mr. Willsmore said very few claims had been lodged: resolved to ask press to give publicity advising growers to make claims, in view of wider interpretation of the word "necessitous."

Levies. Resolved that the association levy would be payable on fruit shipped to Colombo, but not on fruit for Java and the East: the "¾ case" to be regarded as a case.

Colombo Space. Mr. Searcy said the P. & O. branch line was providing special chambers for Colombo; decided to advise associations in other States, and seek similar facilities from regular berth steamers to secure every possible outlet for fruit.

"Counts" for Export. Decided, at instance of Research Sub-committee to discuss at next meeting the advisability of using counts instead of sizes in branding for export.

Mr. McCann's Visit. Messrs. Bishop, Peterson, Randell, Wicks, Searcy, Selth and Pope were appointed a committee to arrange for a conference with Mr. McCann, Trade Commissioner for S.A. in London.

FRUITGROWERS' RELIEF.

DURING MAY the distribution of the Federal Relief Grant to fruitgrowers who suffered losses in the 1933 export season, was temporarily held up in Tasmania. After negotiation between State and Federal authorities, the distributing of the grant was resumed.

Similarly, in Victoria, considerable concern was expressed by growers at what was believed a hitch in the plans for distributing the money. However, the Prime Minister issued a letter on May 23 to the Premiers of the several States, stating the best course was for the State authorities to satisfy themselves that claimants were entitled to assistance.

[It is understood that in Victoria the distribution of the grant will commence promptly.]

Will Grant be Renewed.

Considerable interest was created in a published statement emanating unofficially from Canberra, that the Ministry might be favorably disposed to a renewal of the grant of £125,000 for the 1934 export season.

OBITUARY.

During the recent conference if the Orchardists' and Cool Stores' Association, at Ringwood, word was received of the death of Mr. A. J. Harris, a director of the Blackburn Cool Stores,—one who had always taken a keen interest in the development of the fruit industry. A resolution of sympathy to the widow and family was carried by all delegates standing in silence.

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Apple and Pear Export.

Address by Mr. J. B. Mills, at Cool Stores' Conference.

Agreement with N.Z. Imperative — Co-operation With British Producers — Importance of Mr. Brown's Visit to U.K. — Much Early Australian Fruit Immature and Pitted.

MR. J. B. MILLS, Chairman of the Australian Apple and Pear Export Council, in giving an address on Australian Fruit Export before the Orchardists and Cool Stores' Conference at Ringwood, said that the industry was now organised under the auspices of the Australian Apple and Pear Export Council, which was constituted of growers and shippers organisations in the several States. **For the first time in history the industry could now speak with a united voice.** Although the definite action taken at the Sydney Conference had not met with the unanimous approval, the work had to go on. It was thought to be unreasonable that huge quantities of fruit should continue to be sent forward when prices that did not pay the grower were received. Hence the policy of limitation, or rather the sending of quantities which the overseas markets could reasonably absorb. The Victorian Fruit Marketing Association was the constituent member of the Apple and Pear Council in Victoria. **The V.F.M.A. was doing excellent work. If things were done of which some growers disapproved they should get inside the organisation and make their presence felt and not stay outside and go on shooting.**

Of the Apple export from Australia, Victoria's share was 16 per cent. Of the fruit exported from Victoria, 64 per cent. was on a straight out purchase or guaranteed advance basis, leaving 36 per cent. to go on consignment. In any proposed amendment to the constitution these figures should be borne in mind and a reasonable basis of representation adopted. The subject of varieties for export had not yet been settled. The list had come down from 200 to 43. A letter was just to hand from Australia House, London, requesting that an additional twelve varieties be deleted. This subject would come forward at the next Conference, when it was possible that some varieties now deleted might be put back again, while others would be taken out. **There was an urgent need for a good early variety for export.** With regard to quantities for export, Australia had sought the co-operation of New Zealand in requesting that Dominion to reduce her exports by 13 per cent. in the 1934 season. The New Zealand Fruit Export Control Board, however, had not agreed with the request for reduction as they claimed their system of grading was superior to that of Australia. There were other points involved and these were being negotiated. It was necessary, however, to arrive at a common

basis with New Zealand

with regard to limitation of export. Continuing Mr. Mills stated he had received advice from a leading London merchant that a large percentage of the fruit exported from Australia this season was immature, pitted and lacking in color. The report had stated that Victorian fruit was the best on the market so far this year; however, owing to general lack of quality the trade continued to bring in Newtown Pippins and Winesaps from America. These were clean and bright. Apparently America had got over the bitter pit trouble. The suggestion had been made that instead of spending so much money on advertising a poor article, it would be better to do research work and improve the pack. The report further stated that there was a good market for early fruit of high quality, but so far Australia was up against the competition of clean bright fruit from U.S.A.

The Australian Apple and Pear Export Council, continued Mr. Mills, was seeking an improvement in the facilities for marketing our fruit in the United Kingdom. A first necessity, however, was to put our own house in order. Unless we gave the British public the right goods they would object to the shutting out of foreign fruit. As we had the sympathy of the British producer we should be able to obtain our objective. **It had been suggested to place an excise on foreign fruit in cool store in U.K. unless marketed within a given period.** With regard to the British market for fruit, Australia had to act in co-operation with other sections of the Empire. It seemed as though foreign markets were closing, and we would be forced to focus our shipments on Great Britain. Sweden for some unaccountable reason had now decided to exclude Australian Apples after May 1 each year. Mr. G. W. Brown was going to Sweden to inquire into this matter. No local soft fruit was available at the time, and it seemed a great pity that a market for 150,000-200,000 cases of Apples should be lost to Australia.

Continuing, Mr. Mills congratulated Australian fruit producers on having sent Mr. G. W. Brown to represent them at the Empire Producers' Conference. He had just received a letter from Mr. Brown confirming the statement that much Australian fruit was immature and pitted. It was necessary to arrive at an understanding with the British Government and producers as to marketing periods for Empire fruit. Last year, owing to the excess quantities going forward and much of the fruit being cool stored, the British producer was up in arms against the domination of Australian and N.Z. fruit. In conclusion, Mr. Mills stated that he had noted Mr. H. E. Napier in the audience. Mr. Napier had proved to be a very able representative of New Zealand at the Ottawa Conference.

Mr. H. E. Napier, previously manager of the N.Z. Fruitgrowers' Federation, invited by the chairman to address the meeting, stated that whereas at the moment New Zealand did not see eye to eye with Australia on the subject of grading standards, it was nevertheless realised that a common basis restriction of export was necessary. Recognising, however, the limitation of export markets, New Zealand had embarked on a policy to increase the sale of fruit in the Dominion. By the setting of standards, improvement of distribution and advertising it had been proved that the New Zealand market could absorb much more fruit than was previously anticipated.

Mr. H. J. Willoughby, Tyabb, asked Mr. Mills the relative effects of the consignment and purchased fruit on British markets.

Mr. Mills stated that f.o.b. selling on the mainland States was on the increase. Apparently this method of trade was acceptable to the growers. With regard to marketing in U.K. there were two schools of thought, one favoring f.o.b. selling and the other fruit only on consignment. His own personal view was that if sufficient fruit were already sold in Australia, it should make for a firm market in U.K. as the purchaser would certainly want to sell at a price to cover the amount paid.

A hearty vote of thanks to Mr. Mills was carried with acclamation.

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. . THE OPEN FORUM . .

Orchardists and others connected with the industry are invited to contribute their views to the "Fruit World and Market Grower" through the Open Forum.

This paper does not necessarily identify itself with the views here expressed, and reserves the right to reject or curtail, if necessary, any articles submitted.

(The Editor, "Fruit World.")

Sir,—In August, 1933, the "Argus" published a series of articles by Professor Wadham dealing with the Apple industry, and in concluding said: "It will be interesting to see whether orchardists have sufficient courage to face their main problem in a business-like way or whether they prefer to go on muddling along until a sufficient number have fallen into the ditch exhausted, thus allowing the remainder to survive." It is well for orchardists to reflect upon what has been done in the past year, and what the various organisations plan to do. The most important plan to improve prices is, of course, the

limitation of Apples

for export, and the elimination of certain varieties and grades. It is too early to judge accurately the effect on prices in England, but it certainly did stimulate f.o.b. sales. However, any scheme which limits exports, but which does not provide for the greatly increased quantity of Apples left in Australia is fundamentally unsound. Certainly, the heat wave in Victoria and Tasmania caused great waste, and prevented the huge surplus which would otherwise have been left to be marketed in Australia.

In Victoria there is a movement to control the fruit market supply by means of boards. It is obvious that this scheme does not meet the approval of many, the Box Hill meeting proved this. In attending that meeting one was struck by the conflicting interests of country and metropolitan growers. Growers appear to be intensely individualistic, and resent any interference with their liberty to market their fruit when and where they like. The grower seems to differ from the modern tendency of co-operation. So it might be said that the growers are muddling along. Orchards at the present time are being neglected and going out of cultivation. The weak are falling into the ditch. The law of the survival of the fittest is being fulfilled. The Labor Party call it the law of the jungle. Unless the orchardists evolve some scheme of saving the industry, what Professor Wadham said will happen. There is too much destructive criticism, and not enough constructive in the fruit industry.

Since Mr. Bruce's visit, quotas and restrictions are being discussed. The restriction on export fruit has come to stay, the market in England has limits.

If we restrict exports to Britain, the problem will be what to do with the remainder of the crop. Apple production is increasing every year, as more trees come into bearing. Mr. Lyons talks about fresh markets, but are we likely to

find fresh markets

for Apples?

Britain remains our best market, Germany comes second, and some other European countries take small quantities. The trade balance between European countries and Australia is in our favor, and, due to the economic nationalism policy they pursue, European countries would hesitate to increase the balance in Australia's favor. It really all boils down to tariff bargaining, so, if we buy more of what they sell, they will buy more from us. However, Australia does not want to buy what she can make herself. So, the prospect of increasing our Apple exports seems somewhat remote.

There remains the East, which should be Australia's natural market. The Queensland trade delegation has just returned from the East after inquiring into possibilities of opening up new markets. The delegation reported that there were possibilities of new or extended trade in fruit, among other produce. It was also stated the development must be limited, and the trade must face keen competition, and comparatively low prices. We must also not forget that the fruit trade has difficulties of its own, such as refrigeration, or lack of it. So the Eastern market for Apples also does not seem bright.

We certainly do not want more Apples left in Australia than could be sold at a reasonable profit.

Our home market

is the best, and last year had to pay the losses on export. We can expect and get good prices in Australia if we do not glut the market. How is that to be done if we do not export all our surplus? The only way left appears to be to restrict the growing of Apple trees.

Professor Giblin, at Canberra, said, "In the case of Apples, he could see no remedy, but a systematic rationing of growing by acreage, according to production costs."

This would mean that orchards of the poorer type would be cut out, and would raise questions of compensation. Another plan would be to cut down a certain percentage of all orchards. This would treat everybody alike, and all would benefit by the rationing. We definitely have over-production in Apple production, and such a plan would overcome it, and we could still export our quota, but would not have a big carry-over for consumption in Australia, and would get a payable price in the home market. No grower would like to cut down his fruit trees, but it is better to cut down some, and thus make the others left more profitable. What is the sense of growing fruit when it doesn't provide a reasonable wage and decent working hours

Restriction in production is not new, it is being done successfully in tea, tin, and now in rubber.

We must look to the home market to get our main source of income.

A word

to Pear growers,

What is happening to Apple growers now is likely to happen to you in the future if unrestricted planting goes on.

There is no doubt that overseas markets for Australia's produce will tend to contract instead of expand, due to the present economic nationalism of the world.—Mr. Bruce is better informed than his critics.—Yours etc.,

G. DUFFELL.

Ringwood, 21/5/34.

ARDMONA CANNERY.

Sugar Concession Defended by Committee's Chairman.

(The Editor, "Fruit World.")

Sir, — May I invite the attention of your readers to that part of the annual report of the Ardmona Cannery published in your May issue? The report said that "the inability of the Sugar Concession Committee to fulfil the original promises resulted in very serious alterations as to the prospects of companies such as your own. The guarantee on export was considerably modified after fresh fruit prices were determined, the corresponding loss on realisations having to be borne by the exporting companies."

The Ardmona Cannery's allegation as to the non-fulfilment of promises made

by my committee is quite unsupported by the facts, and amounts to an unwarranted reflection on the committee.

In regard to the 1933 pack of Apricots, Peaches and Pears, the committee guaranteed all canneries certain f.o.b. returns per dozen 30-oz. cans from export, but only up to a maximum limit of £70,000. Not only was that guarantee fully honored, but the committee subsequently modified the guarantee in favor of the exporting canneries by increasing the monetary limit to £106,000 on that pack. The additional £36,000 represented the remainder of the committee's funds available during the ensuing twelve months.

The position of the canneries as a whole early in 1933 was that they accepted delivery of record quantities of fruit at a time when the London market was favorable, and the American dollar was quoted around 3.40. They readily took all the risks of the market and the dollar-sterling exchange, which then seemed negligible.

Just about the time canning had finished, the dollar started its downward course, and was soon depreciated over 30 per cent. Concurrently, Californian fruits depreciated substantially in price, and Australian fruits had to be sold at from 1/- to 2/- per dozen below 1932 prices.

These factors simply meant that my committee's £70,000 proved capable of meeting the full loss on a much smaller quantity of fruits than the canners originally anticipated. A problem immediately arose in regard to the balance of the surplus 1933 production, and the committee went to the limit of its unallotted funds by granting £36,000 more than it had promised—the entire £106,000 being spread equally over the whole pack on a basis approved by the exporters.

I remarked before that the various canners took all the risks of the London market and the dollar-sterling exchange when they so readily put up a record pack. At the time it looked a very safe risk, and one would deprecate undue criticism of the action of the canners in view of the unpredictable, radical changes that are frequently occurring in international trade conditions in these very difficult times.—Yours faithfully,

A. R. TOWNSEND,

Chairman, Fruit Industry Sugar Concession Committee.
Canberra, 15/5/34.

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Open Letter To Citrus Growers.

(To the Editor, "Fruit World.")

Sir,—

Citrus growers, whither bound? Are your self-appointed leaders sincere, or have they got beyond your control?

As a N.S.W. citrus grower, I wish to call them before the bar of public opinion to justify their actions. We have a body called the Federal Citrus Council (Secretary, J. A. Parkes), who, by the way, in "Fruit World," January, 1934, under heading "Review of Happenings 1933, and Prospects for 1934":—"The future, what is in store during the coming season is difficult to say, it is suggested by N.S.W. growers that 700,000 boxes must be exported if the Commonwealth conditions are to be improved."

A nice little nest egg at 6d. per case, as requested by the Fruitgrowers' Federation—£17,500; 700,000 export boxes means 933,000 bushels.

State Marketing Bureau estimate of the crop as at February 12 last as follow:—

Valencias	1,140,000 bushels
Navels	820,000 bushels
	1,960,000 bushels

So N.S.W. growers want to export half the crop, Eh?

The representation from this State is one delegate appointed by the Irrigation Co-op. Society at Griffith. A body which believes in full control, whereby the whole fruitgrowing industry can be Sovietised.

Export Control Rejected.

At a mass public meeting of citrus growers held at Griffith in March, called for the purpose of endorsing the Citrus Council's request to Federal Government, asking for legislation for the control of the export marketing of citrus. The growers refused to endorse the request by a majority of 84 to six.

On April 9, at the largest meeting of citrus growers ever held in Leeton, a similar request was turned down with only two in favor; one of the gentlemen at the meeting who voted in favor of control, when afterwards asked his reasons, he said he didn't care what tax was put on citrus as he could eat all his crop. A candid and perfectly true statement.

N.S.W. Federation Criticised.

Our other N.S.W. representative on the Federal Citrus Council is appointed by the Fruitgrowers' Federation, a body advocating control, through their official organ "Fruit Culture and Small Farming," a paper subsidised by the Fruitgrowers' Federation, and styled the producers' parliament, with funds provided by the Orchard Tax, and says it is published under contract to put the growers' case to Parliaments, public departments and the people, and that the subscribers can have every confidence that no word in its pages is dictated by interests opposed to the grower. What rank hypocrisy and it savors of Lang tactics. Who was responsible for having the Act placed on the Statute Book under the nom de plume of the Plant Diseases Act, 1924? We growers call it the fruitgrowers' cancer.

One point which I want to stress very clearly to the citrus grower is this:—"That before any official notice can be taken of the resolution passed at the meeting on April 9, by either Federal or State Parliament, the resolution must first be submitted to the district conference for approval where Apple, Pear, Banana, Pineapple, Gooseberry and Cherry growers can voice their opinions and vote on a subject they know nothing about.

Another phase of citrus control appeared in Sydney, at a board meeting of the Fruitgrowers' Federation, on April 6. General J. Heane, President of the Federation and Chairman of the meeting, where it was submitted and carried that a special application be made to the State Government for a sum of up to £20,000 to be made available on loan, at say 3½ per cent. interest, such sum to be used by a Committee to be set up for exploring the possibilities of overseas markets and that a sum of 6d. per case be charged against all cases exported, to be used for the payment of interest, administrative expenses, and for the establishment of a sinking fund.

I also notice that Col. E. E. Herrod, Secretary of the Fruitgrowers' Federation, in his report of the above meeting to the "Fruit World," published on May 1, 1934, makes no mention of this ridiculous request. Are they afraid of public opinion?

A grave danger hangs over the citrus growers on the areas, who now see the results of a lifetime's work being ruined overnight by some rash legislative action.

The only remedy whereby we growers can get relief is by immediately

repealing the Orchard Tax

and the agitators will soon have to find other outlets for their activities. We would also appreciate a visit from some of our legislators and we will have much pleasure in showing them the growers who want control.

Thanking you. Mr. Editor, for granting me space to express my views.

Yours, etc.,

J. H. GORDON,

Farm 738, Leeton.

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THE PERFECT WINTER WASH FOR FRUIT TREES

During recent years, much consideration has been given to Tar Distillates as a Winter Wash for fruit trees, and as a result of extensive research and careful experiments, "VALLO" OVICIDAL WASH is put forward as a means of control of Aphids and other destructive insects.

During Autumn, the eggs of Aphids and other destructive insects are laid on the shoots and branches of the tree, frequently many eggs being laid together, and they are usually well hidden from view. These eggs hatch out during early Spring and cause untold damage to leaves and young shoots and also distorted growth and loss of vigour to the trees.

The greatest contributing cause of unsuccessful control of these pests is in the fact that spraying is frequently carried out when the mischief has already been done.

"VALLO" OVICIDAL WASH is to be used during the dormant period of the tree, and, if used in strict accordance with directions, and properly applied, will give 100% immunity from Aphid infection.

A considerable saving is effected by using "VALLO" OVICIDAL WASH for the reason that it will obviate the necessity of Spring Spraying for Aphis, thereby saving a considerable amount of time and labour.

Recommended dilutions determined after tests in many Fruit-growing areas:

APPLES AND PEARS: Use 4 gallons of **"VALLO" OVICIDAL WASH** to make 100 gallons of Spray. Spraying may be carried out with entire safety up to the end of August, but is not recommended for use at any later period.

PEACHES, NECTARINES, CHERRIES, PLUMS, AND OTHER STONE FRUITS: 3 gallons of **"VALLO" OVICIDAL WASH** to make 100 gallons of Spray. Spraying should be carried out during June and July.

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Cases: 4 x 2, gallon tins; 8 x 1, gallon tins.

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New South Wales News and Notes

New Plantings on M.I.A.

Recommendations of Horticultural Planting Committee.

A MEETING of the Horticultural Planting Committee was held at Griffith recently under the chairmanship of Mr. C. G. Savage, Director of Fruit Culture in N.S.W., and arrived at the decisions hereunder:—

Canning Peaches. Further plantings of yellow-centred varieties, such as the approved strain of Phillips, are recommended. No responsibility will be accepted for plantings of Pullars.

Figs. Growers are advised to ascertain the varieties desired by the canneries before planting.

Prunes and Plums. Plantings of Prunes and Plums are not considered justified at present.

Walnuts. Planting is recommended, especially budded trees of Kelvin, Freshford Gem and Wilson's Wonder. Deeper soils should be selected, and overwatering of the soil should be avoided.

Apples. Planting of Granny Smiths for the early export market recommended. Care to be exercised in picking, and a delay of two or three weeks should be made before placing in cold storage.

Currants and Sultanas. Further plantings not recommended.

Quinces. Growers should ascertain the prospects of marketing from canneries before planting one or more acres of this fruit.

Table Grapes. Any further planting of table Grapes is not reccmmended.

Almonds. It was decided to request the Department of Agriculture to extend the investigations with cross pollination. Providing the situation is favorable, further plantings of such varieties as I.X.L., Ne Plus Ultra, Brande's Jordan, Golden State. Hatch's Nonpareil and White Nonpareil are recommended.

Wine Grapes. Further plantings not recommended. If planting, growers should confine themselves to Hunter River Reisling, Rutherglen Tokay, and Rutherglen Pedro.

Pears. By providing suitable pollenisors, the qualities of the Williams Pears will be improved. Provision should be made for such pollenisors as Josephine de Malines and Baronne de Mellow, and Doyenne de Comice. If commercially planted, there is room for plantings of Williams and Packhams Triumph.

Citrus. Further plantings should be viewed with caution pending testing of the export markets.

Conference at Paramatta

£10,000 for Mandarin Growers — Marketing in Sydney—Testing Sprays — Immature Grapes—Compulsory Spraying.

It was announced that the Government was anxious to help the Mandarin growers, at the annual Conference of the Cumberland section of the N.S.W. Fruitgrowers' Federation, which was held last month at the Parramatta Town Hall. It is thought that something like £10,000 will be expended.

It was decided on the motion of Mr. P. Robinson "that the Minister for Agriculture be approached to secure a tightening up of the provisions of the Farm Produce Agents' Act, relative to the bond, and that the Board be urged to draft a Bill to amend the Act, such Bill to embrace all proposals already affirmed by general conference, and such other amendments as may be suggested."

Included in the other motions were:—

"That the Government be asked to pass legislation prohibiting the marketing of immature Grapes in New South Wales."

"That the quality of spraying chemicals be subjected to rigid departmental examination, and that prosecutions should follow failure to comply with description or standard."

"That the spraying of vineyards for pests and disease be made compulsory."

N.S.W. Fruit Crops

Fruit crops in N.S.W. are reported on as follows by the Department of Agriculture:—

At Young the marketable crop of fruit was light, and generally the returns to growers were low.

The Apple crop in the Armidale district produced heavier yields than was previously anticipated, Granny Smiths carrying very heavy crops. At Batlow the yields of both Apples and Pears exceeded expectations.

In the Young centre, Prune trees continue to bloom, and some fruit has set; recent frosts were expected to check this unseasonable flowering. The prospects for a satisfactory crop next season appear very doubtful.

Bananas.—Considerable rain fell over the growing areas. In some instances it amounted to flood falls, and marketing was restricted in the affected areas. Towards the close of April cold conditions were general, resulting in a check to growth, particularly in plantations in exposed positions.

There was a falling off in production in May. In some localities a much-reduced quantity will be marketed compared with the previous month.

More fruit is being cut from young plantations in the Brunswick district, which will compensate to some extent

At Sydney Royal Show, Batlow's winning pyramids of Apples and Pears.

for the decline in production in older plantations in this area.

Passionfruit.—The light autumn crop in the Mullumbimby district (North Coast) is being marketed.

In the Hills district (County of Cumberland) there is a very light winter crop. Recent cold weather has hardened off the vines, and any fruit setting at this stage will be adversely affected.

Pineapples.—In the Terranora district (Tweed River) ripe fruit is scarce, but heavy crops are in sight, and they are maturing satisfactorily. Fair crops are being harvested in the Woodburn centre. Local demand is good.

Viticulture.—Vintage returns from south and south-western areas were considerably higher than previously anticipated, and densities were better than those of the Murrumbidgee Irrigation Area.

The quality dry white wines of the Hunter River are in demand, but supplies are limited. Rates for the 1934 vintage are in advance of those last year, and it is expected that any of this season's wine showing promise will be eagerly sought after.

Export shippers complain that supplies of Grapes suitable for overseas markets are not available in sufficient quantities. On present indications, the vintage this season will not reach two million gallons.

The citrus crop report is given on another page.

The Kentucky Co-operative Society's packing house at Kentucky South anticipates packing 50,000 bushel cases of Pears and Apples this season, and the K.A.B. packing house at Kentucky will handle 25,000 cases.

N.S.W. FRUIT DISTRIBUTORS' ASSOCIATION.

Office-Bearers Elected.

At the annual meeting of the N.S.W. Wholesale Fruit Distributors' Association, held in Sydney in May, the following officers were elected for the forthcoming twelve months:—President, Mr. H. G. S. Webster (managing director, Veitch & Pierce Ltd.); Vice-chairman, Mr. W. H. Price (W. H. Price Ltd.); Hon. Treasurer and Secretary, Mr. H. Moore (W. Stoyles); Executive Committee: Messrs. Webster, Price, Moore, F. Chilton and W. Lui (Wing Sang & Co. Ltd.); Hon. Auditors, Messrs. Price and H. McEnally.

Hawkesbury District Conference.

The Hawkesbury district conference of the N.S.W. Fruitgrowers' Federation was held at Windsor on May 19.

Resolutions were carried favoring research to eradicate fruit-fly to be financed by State and Federal Governments; that the Board of the Federation set aside money for organising through the district councils; that all fruit should be sold on commission only, at 7½ per cent., and that the flat rate of 6d. per case be abolished; that previous citrus grading regulations be reverted to permitting the marketing of small Oranges; that the Federal Government be requested to continue the 15/- per ton fertiliser subsidy for the present year.

Bathurst. — The annual conference of the Central Tablelands branches of the N.S.W. Fruitgrowers' Federation resolved in favor of strict enforcement of grading for the Sydney market. Mr. A. U. Tonking, M.L.A. (Orange) urged the elimination of "plain" grade, thus preventing the introduction of "plain" grade from Tasmania and Victoria.

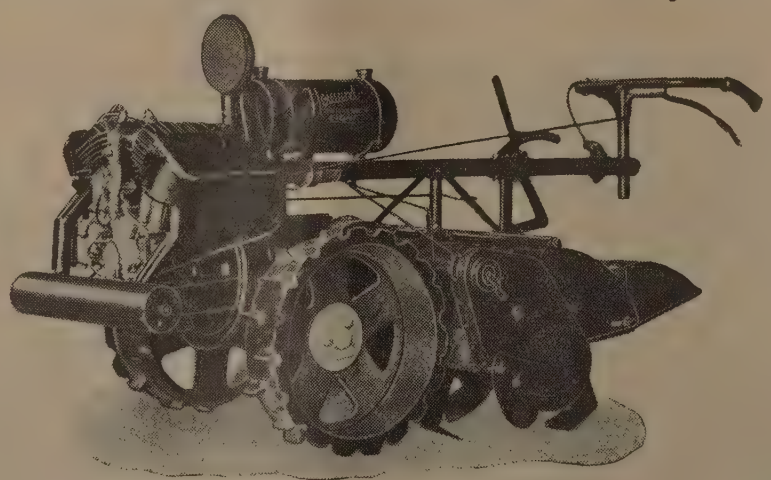
Other resolutions favored alteration to export grading regulations to conform to standards of overseas competitors: that flat rate of commission be abolished in favor of a general 7½ per cent. commission; that a number of suitable agents be selected with a view to reduction.

Messrs. H. G. Edgell (Bathurst) and A. U. Tonking (Orange) were elected board delegates; while Messrs. Nancarrow, Packham, Pascoe, Robertson, Ray, Hazelwood, Rheinberger, Green, Ironmonger, and Standford were elected district representatives to the general conference.

Goulburn.—Mr. T. A. Tester presided at the southern districts' conference of the Fruitgrowers' Federation on May 24. A motion favoring altering the regulations to avoid glutting Sydney with "plain" grade Apples from the other States was defeated.

Resolutions were carried: (1) Seeking additional inspectors to prevent the spread of fruit fly; (2) That fruit be admitted into M.I.A. where it was clear no danger would result; (3) Registration of all owners of one or more fruit trees, because of the danger of disease from backyard orchards; (4) That the minimum fee be 2/6, and one tree constitute an orchard."

Till Your Land with a HOWARD Rotary Hoe.



HOWARD ROTARY HOE "EIGHT," the ideal machine for Orchard Cultivation. Cuts 3 feet wide and up to 9 inches deep.

Models of the Howard Rotary Hoes are supplied for all classes of work.

For further particulars ring or write the Manufacturers:—

Howard Auto-Cultivators Ltd. - Northmead, Sydney.

Phones: UW 8984 and UW 8842.

A Profitable Sideline.

Good money is to be earned in the country by the snaring of water rats. Farmers and others living near rivers, swamps or large dams will have no trouble in seeing traces of these little animals, the skins of which are much sought after by manufacturing furriers to-day. They bring high prices right through the year.

Water rats frequent old rabbit burrows. Many ways have been devised in trapping. The jam tin snare is one of the best; make a cross-cut at the top of a jam tin and press the four corners in; place a piece of meat inside the tin; the tin should then be wired and pinned to the ground. When the rat pokes its head in to get at the meat the points of the four corners which have been pressed in prevent it from withdrawing its head. The method of skinning and drying should be the same as a rabbit, that is it should be gloved. Never cut up the belly, as this method is not correct, and lowers the value of your skins. Snares may be set in the afternoon, and visited to take the catch in the early hours of the morning.

Care should be taken to see that the skins are thoroughly dried before packing for transit or storing, otherwise they may arrive in a damaged condition.

Messrs. SLATTER & CO., of Nicholas Building, Swanston Street, Melbourne, will purchase these skins in any quantity, and pay top market price. On receipt of a parcel, they grade the pelts, and forward you a cheque by return mail. This firm are also buyers of other skins, and will always be pleased to receive consignments of same from the country.

Dried Fruits—News and Notes

DRIED TREE FRUITS.

Growers Favor Control.

By 554 votes to 225, growers of dried tree fruits in Australia have decided to allow their Interstate marketing to be controlled by the provisions of the Dried Fruits Amendment Act, which was passed by the Federal Parliament last December. Marketing will be similar to the marketing of dried vine fruits. Voting, which was announced by the Commerce Department, was as follows:

	For Act.	Against Act.
N.S.W.	215	116
Victoria	39	15
Sth. Australia	300	94
Totals	554	225

Regulations have been gazetted covering the trade in dried tree fruits in Australia. No person can buy or sell dried tree fruits unless the product has been packed in a registered shed (or shed exempted by the Minister): labels must indicate variety and grade. Conditions are set out for processing, grading, stemming, packing, storage, etc., also pest control. Inspectors have wide powers.

DRIED FRUITS EXPORT.

Currants Active in U.K.

The Commonwealth Dried Fruits Export Control Board report that during the week ended May 17, 668 tons of Australian dried fruits were recorded with the London agency of the board as having been sold in Great Britain.

The market for Currants continues active, and 569 tons were sold at an average price of £42/5/- per ton. The sales of new season's Currants to date amount to 1,693 tons, at an average of £42/12/3 per ton.

Of 1933 Sultanas, 91 tons were disposed of at an average of £30/18/4 per ton.

Dried Fruits Act. — Archibald S. T. Braund, a Renmark fruitgrower, was recently fined £25 for having sold 28 lb. of dried fruit to a storekeeper.

Swan Hill.—Total deliveries of dried fruit to all district sheds for this season have reached 6,591 tons. There are about 100 tons more to go forward. The yields for the season were about 10 per cent. less than last year.

DRIED FRUITS IN MILDURA DISTRICT.

Deliveries of dried fruits to the packing sheds in the Mildura district for the season aggregate 39,258 tons, of which the Merbein sheds received 12,270 tons; Red Cliffs, 11,763 tons; Irymple, 9,184 tons; Mildura, 5,477 tons, and New South Wales, 563 tons. In the last week the sheds received 424 tons 16 cwt., of which Sultanas comprised 198 tons; Currants, 79¾ tons ,and Lexias, 146 tons 17 cwt.

DRIED FRUIT FOR LADY HUNTINGFIELD.

Mr. J. M. Balfour, Chairman Victorian Dried Fruits Board, states that a box of dried fruits will be presented to Lady Huntingfield, wife of Victoria's new Governor, at the opening of an exhibition under the auspices of the Housewives' Association, in July.

DRIED FRUIT EXPORT QUOTAS.

The 1934 export quotas for dried fruits have been fixed as follows:—Apricots, 55 per cent; Sultanas, 82½ per cent.; Pears, 66 2/3 per cent.; Currants, 80 per cent.; Prunes, 33 1/3 per cent.; Peaches, 66 2/3 per cent.; Lexias, 66 2/3 per cent.; Nectarines, 25 per cent.

DRIED FRUITS QUOTAS.

The Minister for Agriculture, on the recommendation of the N.S.W. Dried Fruits Board, has determined the following quotas for dried fruits, to be sold in N.S.W.:—Currants, 20 per cent.; Sultanas, 17½; Lexias, 33-1/3rd; Prunes, 66-2/3rds; Apricots, 45; Peaches, 33-1/3rd; Pears, 33-1/3rd; Nectarines, 75.

Merbein. — 172,081 cases (4,729 tons) of new season's dried fruits have been despatched from the Merbein Railway Station this season (up to May 22), as compared with 220,741 boxes (6,067 tons), to a corresponding date last season.

FIRE IN COLD STORES.

Building and Plant Destroyed at Blackwood, Sth. Australia.

Growers Sustain Heavy Losses.

All interested in the fruit industry will be sorry to hear of the serious fire which completely destroyed the Blackwood cold stores on May 13. The building and plant cost about £12,000 or £13,000; Apples, jam and dried fruit worth about £6,000 which were stored there were a total loss. Growers, some of whom had thousands of cases of Apples stored, on which they hoped to make the bulk of the profit on their year's work by winter sales, have lost heavily.

The fusing of electric wires is thought to have been the cause of the fire.

TASMANIAN APPLES IN MELBOURNE.

Small supplies of Tasmanian Apples reached the Melbourne market towards the end of May: increased quantities are expected to arrive in the near future.

Varieties were Delicious, Scarlet Pearmain and Jonathan Apples.

The "Twenty-first" Century Duplicator

PRICE NINETY SHILLINGS (90/-) FOOLSCAP.

75,000 used by H.M. Governments.
Supplied to N.S.W. Government.

No Wax Stencils, Duplicator Ink or Quick-drying Paper Needed.

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Supplied to New Zealand Government.
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Outclasses all Gelatine, Stencil and Draft Duplicators.

OVER ONE MILLION IN USE in Great Britain. 6,000 in use Australia.

100 Perfect Reproductions in a Few Minutes of Typewritten and Hand-written Matter, such as Circular Letters, Price-lists, Reports, Advices, Specifications, Plans, Drawings, Factory Forms, Customs Entries, Notices, Etc.
Can be used, Cleaned in a Minute, and Immediately Re-used.

A SPLENDID OFFICE DUPLICATOR.

In the current issue will be found the advertisement of Messrs. George Orr & Co., of Melbourne, relating to a Duplicator, the price of which is only ninety shillings, and, moreover, requires no wax stencils, ink or quick-drying paper, therefore no expensive upkeep.

A very large number of these duplicators are already in use by wholesale fruit merchants, exporters, co-op. packing companies, seedsmen and nurserymen, of the 6,000 now in use.

Its operation is simplicity itself. To secure quantities of facsimiles of a form letter, circular, price-list, etc., all that is necessary is to type one out on a sheet of ordinary letter-head paper, place on duplicator for five minutes, remove, and on the resultant negative, place thereon the blank sheets, apply roller, and the blank sheets instantly become facsimiles of the original. When required number of copies have been obtained the negative is removed with a damp sponge, and duplicator ready for another original. It can accomplish in a few minutes what would take the average typiste a day to do by means of two or three at a time by carbon paper. It is not the old-fashioned gelatine process, but a nice clean composition, resembling India rubber, which cannot stain the hand or clothes, and a very large number have been sold to firms even already equipped with automatics. Its initial cost is very soon saved in the matter of supplies alone, printer's bills, etc.

Each outfit carries a stock of supplies for both hand and typewritten matter, and list of "fool-proof" instructions, and, if same are carried out, absolute satisfaction is assured. The price, ninety shillings (cash with order), also covers cost of delivery to any part in the southern hemisphere, and a twelve months' guarantee.

GRAPE GROWERS' PROBLEMS.

South Australian Grape growers waited on the Federal Minister for Customs in May, and said that if wine-makers had played the game, and passed on the reduction of excise, Grape growers would not be in their present difficult position.

The Minister said he would co-operate with growers to ensure maintenance of the prices announced by the Government.

BROADCASTING.

Talks of interest to horticulturists will be given as follows from 4QG Brisbane, commencing at 7.15 p.m.:—

June 5.—Pineapple Wilt, by H. K. Lewcock, M.Sc., Assistant Plant Pathologist.

June 12. — Insect Pests of Ornamental Trees and Shrubs, by A. R. Brimblecombe, Assistant to Entomologist.

ADVERTISING QUEENSLAND CITRUS.

A handsome poster advertising Queensland Oranges and Lemons is being displayed in Melbourne and elsewhere. This is issued as part of the propaganda issued by the Committee of Direction of Fruit Marketing. It shows a well designed basket of Oranges and Lemons in natural colors, the wording being "Nature's Golden Gifts; Juiciest and Best; Ask for Queensland Citrus." The poster is an attractive one.

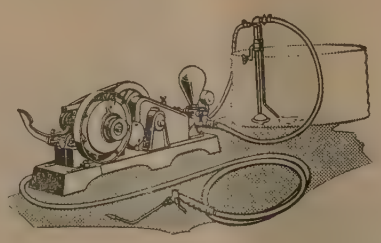
ADVERTISING PAPAWS.

A campaign for the advertising of Papaws is being carried on by the C.O.D. of Fruit Marketing, Brisbane. In September, 1932, a ballot of Papaw growers was taken as to whether ¼d. per case levy should be collected, and a vote in the affirmative was received, and in 1933 another ballot was taken re the continuance of the levy.

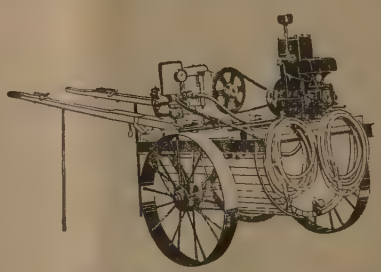
£127 has been collected and arrangements have been made for the printing of 100,000 eight-page Papaw booklets, dealing with the growth, flowering and fruiting of the Papaw; 2,000 shopcards are also being printed in reverse in blue, and will be distributed to shops handling Papaws.

The advertising campaign will be mainly carried out in Sydney, but a little will be done in Melbourne.

There's a Dangar, Gedye Spray for every Orchard Job



Here Are Two Examples



A small, powerful, completely self-contained spraying outfit; has simple, reliable petrol engine; pump delivers up to 200lb per square inch and over 80 gallons an hour; weighs only 120lb; occupies space only 40in. x 8½in.; easily portable on waggon, dray, or sledge; guaranteed.
This plant is delivered ready for use, with suction stand, agitator, and hose, 30ft. delivery hose, 7ft. 6in. rod (in two sections), and spraying rose, complete for £55.

The outfit illustrated above comprises a Myers' self-oiling pump; wooden tank (80 gallons), with mechanical agitator; driven by 1½ or 3 b.h.p. Lister Petrol Engine, hopper cooled. Two 25ft. lengths hose, with cutouts and nozzles. Mounted on two wide-tyre steel wheels, with strong shafts.

For further particulars all models, also easy terms, write to the sole agents for New South Wales:—

DANGAR, GEDYE & CO. LTD.

10 - 14 Young Street, Sydney

Winter Spraying.

RED SPIDER: SAN JOSE SCALE: SCALE INSECTS: GREEN PEACH APHID: APRICOT SHOT HOLE: PEACH LEAF CURL AND RUST.

Habits of Oriental Peach Moth described.

THE WINTER PROVIDES a splendid opportunity for combating many important pests and diseases for most of them are in a dormant state and are easily reached by means of sprays. The following can be dealt with effectively by spraying during the winter months.

Red Spider.—The mites deposit masses of minute eggs on the fruit spurs and rough bark of Apple, Pear and other fruit trees, and even on props used in the orchard.

These eggs can be destroyed by either lime-sulphur 1 in 10 or red oil 1 in 20 applied in July or August. This will minimise infestation in the following spring.

San Jose Scale.—This notorious insect overwinters under a resistant waxy scale on fruit trees and various kinds of wattles. It can be destroyed, however, by means of suitable winter sprays. The insect reproduces rapidly and spreads to other trees in spring if it is not checked. Control measures:—A spray with either lime sulphur (1 in 10) or red oil (1 in 15) in July or August; cut off and burn heavily infested branches, also burn all prunings from infested trees; destroy wattle trees infested with the scale.

Other Scale Insects. — Many other scales can be controlled by winter spraying, e.g., Apple mussel scale, olive scale, vine scale, Raspberry scale. The spray materials mentioned above are the most effective. Citrus scale insects, including the red, brown and olive scale can be dealt with by means of white oil used at a strength of 1-40.

Green Peach Aphid. — Eggs provide the means of carryover for the winter. They are laid on all parts of Peach and Nectarine trees, but principally around buds on the laterals. Egg-laying commences about the first week in May, and is completed by the middle of June. Hatching begins early in July. Results of investigations carried out by the Department of Agriculture show that the aphis can be completely controlled by means of an application of tar-distillate spray early in July at a strength of 1 in 30.

Apricot Shot Hole. — This disease exists during the winter on Apricot trees in the form of resistant spores. It can be controlled by two sprayings of Bordeaux mixture used at a strength of 6-4-40; one being applied in winter after the leaves have fallen (say July), and the second applied at the pink bud stage.

Peach Leaf Curl and Rust. — Apply lime sulphur at 1 in 10 strength or Bordeaux 6-4-40 to the trees in late July or early August.

Green Peach Aphid.

A full account of the life history of this aphid, together with the results of extensive orchard experiments and laboratory tests with different spray materials, by Mr. K. M. Ward, Entomologist, of the Department of Agriculture, has recently been published in the Departmental Journal.

Four years of observations and experiments on the activities of the aphid have established the fact that Peach trees become infested only from the winter eggs which are laid on the trees in May and June of each year. From the practical and economic point of view this regular occurrence of the egg-laying stage is important, since it offers a satisfactory means of preventing outbreaks of the pest in Peach orchards. The advantages of attacking the insect at this stage are as follows:—

(i) The aphid is in a single, stationary stage (the eggs) of existence on Peach trees, and thus is readily accessible for spraying;

(ii) A suitable spray properly applied will destroy the eggs and prevent spring infestation;

(iii) The spray can be applied at a time of the year when orchard operations are not numerous;

(iv) Dormant trees require much smaller quantities of spray material to cover them than trees carrying foliage;

(v) A single application of a suitable spray is sufficient to ensure the suppression of the insect for the rest of the year.

In laboratory tests and orchard experiments various sprays have been carefully tested against the eggs of the aphid. These include, tar-distillate, lime sulphur and red oil. Of these materials tar-distillate was outstanding as an egg-killing wash, lime sulphur also was fairly highly toxic and red oil was the least effective of the three.

Results of laboratory tests in 1932 are shown in the following table:—

Material.	Strength.	Percentage of eggs killed.
Tar distillate	4%	100
" "	3%	100
" "	2%	99.6
Lime sulphur	10%	88.6
" "	8.3%	81.2
" "	6.6%	80.5
" "	5%	51.3
Red oil	5%	51.3

The spraying trials in the orchard at Burnley Horticultural Gardens in the same year gave the following results:—

Material.	Strength.	Percentage of Infestation.
Tar distillate	3%	0.3
Lime sulphur	10%	20.4
Red oil	5%	13.9
Unsprayed	—	44.2

* * *

Oriental Peach Moth.

AMONG THE PEACH-GROWERS of the Goulburn Valley this year a new and grave menace has appeared. It is the Oriental Peach Moth, an insect which has appeared in this State only within recent years, and last season suddenly developed to plague proportions. It is estimated that half of the Goulburn Valley Peach crop was destroyed, the late varieties of Peaches and the Quinces suffering most severely.

The insect first becomes active in spring when adult moths emerge from their winter hibernating cocoons and lay eggs on the underside of Peach leaves. When the grub hatches from the eggs it eats its way into the tip of a young, growing shoot, and in the course of feeding tunnels it out, thus causing "twig injury." When full grown the grub makes a cocoon on the twig or leaf and in this it changes to the moth, which gives rise to the next brood. There are several broods of the insect in a season, the first brood feeding in the young shoots, and later broods attacking the fruit. Peaches may be attacked when they are only half grown, but the majority of them are injured when nearing maturity. Generally, a grub enters the fruit from the side, but often it enters from the stalk, thus leaving no visible entrance hole.

During the summer the grubs spin their cocoons on the fruit itself and in crevices, etc., on the branches, but at the end of the season many of them spin winter cocoons on the trunk of the tree. Winter cocoons are also to be found in fruit cases, in rubbish on the soil and on the branches of fruit trees.

Control Measures.—So far no very satisfactory means of control of the Oriental Peach Moth have been developed. Owing to the grub discarding the first few mouthfuls of food, it cannot be poisoned by means of sprays applied to surfaces of fruit, twigs and leaves. It has been stated by Mr. K. M. Ward, of the Department of Agriculture, other measures can, however, be adopted to assist in reducing the infestation in Peach orchards. Included among these are:—

(i) The cutting off of grub-infested twigs in spring and early summer and their destruction by burning;

(ii) The use of tree bandages, particularly towards the end of the season,

COOPER'S
OVICIDE
[TAR DISTILLATE WASH]

Has been used by thousands of growers over the last four seasons and has definitely proved to be in a CLASS OF ITS OWN.

OVICIDE has consistently given 100 per cent control of Peach and Cherry Aphis.

Give Your Trees a Clean Start This Season. **NEW REDUCED PRICES.**

Particulars from—

WILLIAM COOPER & NEPHEWS (Aust.) LTD.
4 O'Connell Street, SYDNEY

OBTAINABLE FROM:—

N.S.W. — William Cooper & Nephews (Australia) Limited, Sydney, and Agents.
VICTORIA.—F. R. Mellor, 440 Elizabeth Street, Melbourne.
TASMANIA.—Bender & Co. Pty. Ltd., Launceston and at Huonville; A. G. Webster & Sons Ltd., Hobart.
STH. AUSTRALIA.—Elder, Smith & Co. Ltd., Adelaide.
WEST AUSTRALIA—The Westralian Farmers Ltd., Perth.
QUEENSLAND. — Queensland Fruitgrowers' Society Ltd., Cleveland, Brisbane.

Fruchthandel Gesellschaft
Scipio & Fischer

Fruchthof-Bremen

Fruchthof BREMEN Germany

Cable Address: "Orange," Bremen

Established 1902

AUSTRALIAN REPRESENTATIVES:

Victoria: J. B. Mills & Co., Aberdeen House, 528 Collins Street, Melbourne.
South Aust.: Messrs. Paterson & Co. Ltd., Adelaide.
West Aust.: Messrs. Paterson & Co. Ltd., Perth.
Tasmania: Messrs. H. Jones & Co. Pty. Ltd., Hobart.

when the grubs are seeking winter hibernating quarters; the bandages should be removed and burned before July;

(iii) Late winter and early spring cultivation of the Peach orchard to destroy grubs hibernating in the soil;

(iv) Orchard sanitation such as sterilising of fruit cases, and the burying of waste fruit;

(v) The destruction of non-commercial Quince trees growing in or near Peach orchards.

There are known to be a number of parasites attacking the Oriental Peach Moth in the Goulburn Valley areas, and it is to be hoped that these will be useful in reducing the damage caused by the pest.

Winter Ploughing.

A Reminder to Orchardists.

If the orchard has been ploughed in late summer or autumn, following the trampling, received during the picking season, it is often possible to allow the second ploughing to be deferred until nearly spring, but should the land have become badly compacted again or covered with a heavy growth of weeds, the second ploughing should be completed by the end of July, writes the N.S.W. Dept. of Agriculture. Where a

green manure crop

has been sown it should be ploughed under before the end of this month. If for any reason the autumn ploughing was omitted the land should be ploughed as early as possible.

When two ploughings are carried out during the dormant season, the second ploughing generally leaves the soil in a suitable condition to absorb readily any rain or artificially applied water, and it can then often be left undisturbed for some time during the spring.

Broadly speaking, mouldboard ploughs are more suitable for orchard work than disc ploughs, but conditions may occur in some orchards which will make the use of a disc plough preferable. The reversible plough, which can be adjusted to throw all the sod one way instead of in lands, is very little used in orchards, but such a plough has been found very serviceable on a steep slope on the Kurrajong, where a sod turned down the hill can never the thrown so far back up the hill again, and the soil is being continually worked down the hill. By using a reversible plough the grower can always throw the furrow up the hill, thus counteracting the tendency of the soil to creep downwards.

Home is the one place in all this world where hearts are sure of each other. It is the place of confidence.

The Woolly Aphis.

Winter Spraying Where Necessary.

Save Parasitised Prunings.

IN MOST DISTRICTS the wasp parasite, Aphelinus mali, is effective in keeping the woolly aphid under control, but occasionally small numbers of trees become heavily infested. In these cases it is advisable to reduce the infestation by spraying during the winter months (writes the N.S.W. Dept. of Agriculture).

A miscible oil used at a dilution of one part in twenty-five parts of water is recommended, and should San Jose scale or red mites be present they will also be controlled by this application.

In spraying, a high pressure should be used and the nozzle held close to all the infested parts in order to break up the clusters of insects.

Experiments have demonstrated that such a spraying does not adversely affect the parasites, as during the winter months they are protected within the bodies of the aphids.

Save Prunings.

In some districts it has been noted that early in the spring the parasite takes some time to breed up to sufficient numbers to bring the pest under control, and during this time the woolly aphid may become sufficiently abundant to cause some injury. For this reason the Entomological Branch has frequently advised orchardists not to destroy prunings bearing parasitised aphids. These can be stacked in heaps in convenient places throughout the orchard. The parasites continue to develop and in the spring the adults emerge and are thus enabled to get an early start in checking the woolly aphids. When all the parasites have emerged the twigs may be destroyed.

Further proof of the effctiveness of this procedure has recently been provided by the Department's Fruit Inspector at Batlow. He advised a local orchardist to keep several cartloads of prunings, which were stacked in heaps during the winter months. An inspection in October showed that large numbers of adult parasites had already hatched and were still hatching at the time of inspection. In January, though this orchard had been heavily infested during the previous season, it was almost free of the pest. Large numbers of Aphelinus mali were present at this time and were apparently in complete control.

Vine Diseases.

Departmental Warning Against Transfer of Vines.

THE Superintendent of Horticulture, Mr. J. M. Ward, states that though some years had elapsed since Phylloxera had destroyed the vineyards of north east Victoria, necessitating their re-establishment on resistant stocks, a similar fate awaited districts that were still clean as soon as Phylloxera was brought into them.

To guard against such a calamity, stringent precautions are provided in the Vegetation and Vine Diseases Act; a fact that does not appear to be sufficiently realised. Any person who removes from a vine disease district any vine, or part of a vine, or plants or transplants within or brings into any part of Victoria any diseased vine or part of a vine or any vine or part thereof which has been removed from a vine disease district or from any place outside Victoria infected or reasonably believed to be infected with vine disease, is liable to a penalty of £100.

There are two such vine disease districts—Geelong and North Central. The Geelong vine disease district comprises part of the County of Grant, within an approximate radius of 15 miles from the town of Geelong. The North Central vine disease district comprises the whole of the Counties of Bendigo and Rodney, and parts of several other counties, an area extending north and south from Echuca to Seymour, and east and west from Tallangatta to the Avoca River.

Before vines or vine cuttings may be introduced into Mildura, Swan Hill, Lilydale, Great Western, Tresco, Koondrook, and parts of Kerang, a permit from the Department of Agriculture is necessary.

No tree, plant or vegetable is allowed into Mildura, Swan Hill and Kerang shires, unless certain conditions have been complied with.

It is hoped that nurserymen and others will carefully note this warning, and avoid any breaches of the law which might otherwise arise through oversight.

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Cold Storage In Australasia

Orchardists and Fruit Cool Stores Association of Victoria.

Important Conference at Ringwood.

Cold Storage of Pears—Gas Storage—New Apple Case—Power Plants for Cool Stores—Severe Codlin Moth Infestation—Leaf Scorch—New Executive Elected.

THERE was a large attendance at the annual conference of the Orchardists' and Fruit Cool Stores' Association of Victoria, which was held at Ringwood on May 15, 1934.

Delegates were in attendance, from various parts of the State.

Mr. E. H. Hatfield presided.

In opening the conference, Cr. Miles, Mayor of Ringwood, said that in any requests for assistance growers were not asking for charity, but for a fair deal. The sugar embargo was a burden on fruitgrowers: other industries should not be bolstered up at the expense of the fruit industry.

The annual report stated that the effort to secure the sale of large fruits (Apples, Pears and Peaches) by number instead of by weight did not appear to be successful.

Regarding taxes and duties, exemption from the sales tax had been secured for a refrigerating plant and parts thereof. Exemption from sales tax was also sought for calcium chloride and anhydrous ammonia.

Application had been made, without avail, for remission of duty on red mineral oils for spraying.

As Queensland and N.S.W. objected to spray residue on Apples and Pears, strong representations were made: should the health authorities insist on these regulations it would be necessary to wipe or wash all fruit.

Representations had been made to have growers' motor vehicles excluded from the Transport Act; also that the Commonwealth grant be made available promptly and a broad interpretation of the term "necessitous" growers.

A protest has been lodged against the lifting of the embargo on the exportation of Apples and Pears from N.Z., on account of the danger of bringing in fire blight.

The Federal Minister for Health had replied that the embargo had been modified to admit into Australia Apples (only) from districts in N.Z. free from fire blight. So far Central Otago was only free, and this area produces only 7 per cent. of N.Z's. export Apples.

Complaints had been made that Plums were being bought by factories at a lower figure than provided by the Sugar Concession Committee. The attention of the Sugar Concession Committee and of Mr. W. Young had been directed to this matter. Growers should send in any concrete examples in this connection.

Owing to the shortage of export space in early March, the trees were overburdened in March, and thus suffered when the heat wave came. Thus much of the loss could be attributed directly to the Fruit Export Council.

Next Conference. The invitation to hold the next conference at Blackburn was noted with appreciation, and referred to the executive.

The financial statement showed income £180 (including £36/10/7 brought forward) the principal items for expenditure were: Fruit propaganda, £33/8/6; by-products research, £26/1/9; Honorarium secretary, £52; balance at bank, £5/5/4. Assets fixed deposit, £100.

Mr. J. B. Mills, Chairman Australian Apple and Pear Export Council, gave an appreciated address on the subject of "Fruit Export" (details elsewhere in this issue), and was accorded a hearty vote of thanks.

Mr. H. G. Parsons, Institute of Refrigeration, spoke highly of the research work which was being conducted at Cambridge and East Malling. At the Ditton Laboratory some excellent work had been done with gas storage. It had a big future in relation to the fruit industry. Dr. Franklin Kidd and Mr. West were doing excellent work. With the gas storage it was necessary to have the percentages of oxygen and carbon dioxide correct. Good results had been secured with 5 per cent. oxygen and 5 per cent. carbon dioxide. More control was needed over the temperatures in ships' holds. The question has been asked as to whether gas storage would do away with refrigeration. The answer was "No." Cold storage was necessary, but by the correct proportions of oxygen and carbon-dioxide, the storage life of many products, including fruit, had been doubled.

Mr. R. F. Turnbull, Division of Forest Products, Council for Scientific and Industrial Research, gave details of the experiments conducted by the C.S.I.R. into the relative merits of cases for Apple export. So far, the nine-inch dump case had been proved to be the best, and the cases were being tested out commercially this season in the export trade. Mr. Turnbull was thanked for his address.

Mr. C. J. Parnham gave a demonstration of the new "Miller" type of export case, the cleats and bulge being contained within the walls of the case. Wiring was unnecessary.

On the motion of Messrs. Willoughby and Hocking it was decided:—

> "That this conference is of the opinion the dump case is the most suitable type for the export of Apples."

Election of Officers.

Before nominations for office-bearers were called for, the President, Mr. Hatfield, announced that owing to differences within the association, all the present officials had resolved not to accept nomination. After the tea adjournment the following were elected:—President, Mr. J. J. Tully, Doncaster; vice-presidents, Messrs. F. Moore, Blackburn and L. G. Cole (Tyabb); auditor, Mr. J. W. Barrett; delegate to the Chamber of Agriculture, Mr. F. Petty. Mr. Barrett was cordially thanked for his services as auditor, and for preparing graphs showing working costs.

A vote of confidence in and thanks to Mr. J. G. Aird was carried unanimously, on the motion of Messrs. Willoughby and Finlay. Mr. Finlay said he trusted that the association would revert to its previous activities in dealing only with cool storage matters, which was ample for the executive to attend to. Thus, they would not tread on the corns of others, and cause needless friction.

Mr. L. G. Cole stated he hoped the association would deal with matters of policy apart from cold storage, but in doing so, the association need not get at cross purposes with everyone. Certainly, he had not heard any "whisperings" of disparagement regarding the secretary.

Mr. R. N. Vroland gave legal opinion as to the responsibilities of overseas re-

ceivers and local shippers in relation to transactions with growers, and was cordially thanked. (Details in another column.)

Mr. G. B. Tindale, cold storage research officer, Department of Agriculture, spoke on the subject of Pears in cold storage, and was recorded a vote of thanks.

Mr. W. P. Mair, Tyabb, moved that the executive investigate the possibility of the cool stores collectively trying to obtain some relief in the matter of insurance premiums.

Mr. Barrett stated the only way was for all the insurance to go through one company. A reduction could then probably be arranged with the Fire Underwriters' Association. It was decided to leave this matter in the hands of the executive.

Mr. J. H. Lang, Harcourt, gave an interesting address on the subject of power plants for cool stores, and was cordially thanked.

A discussion was initiated by the Wantirna delegates as to the cause of the increased codlin moth infestation, and stating the view had been widely expressed that arsenate of lead had not been doing its work as previously.

Mr. W. A. Thiele said some of the damage was caused by the Oriental Peach Moth, which came in periodical swarms. No poison was known which would kill this pest.

Mr. H. R. Chandler advocated the use of chemical bandages for trees to minimise codlin infestation. Some growers successfully dipped the bandages in tallow.

In the discussion the question was raised as to the increase of codlin moth because of heat waves, also as to the use of white oil and nicotine to destroy the eggs and young grubs. The matter was referred to the executive committee,—also the subject of securing a remission of the duty on red spraying oil, which the chairman stated was not produced in Australia.

Regarding Interstate freights, it was pointed out that most of the fruit now went by steamer instead of by rail; the charge for taking the fruit from Spencer-street has recently been increased from ½d. to 1d., and it was decided to protest against this increased charge.

Several phases of the operation of the Transport Act, and its effect on growers' vehicles was mentioned; the executive was asked to investigate the position.

It was decided on the motion of Mr. F. A. Bloom, to seek a reduction of interest on loans to cool stores.

Leaf Scorch.

Through the question box, the subject of leaf scorch was raised, and opinions sought as to its cause. Mr. F. M. Read, Department of Agriculture, stated that leaf scorch was associated with the physical conditions of the tree; with heavy crops there had been leaf scorch, whereas on trees bearing light crops, which he had seen at Upper Beaconsfield, there was no leaf scorch. There were other factors—such as at Bacchus Marsh, leaf scorch through potash deficiency. A third cause has been the straight-out shortage of water. Some time ago an investigation had been commenced as to the effect of sprays on leaf scorch, but owing to insufficiency of finance this work could not be carried on, which was regrettable.

Mr. Webb moved in favor of the Cool Stores' Association affiliating with the Southern Cool Stores' Association. Mr. Aird expressed the view that the Southern Cool Stores' Association should affiliate with the Cool Stores' Association. This was referred to the executive.

Centenary Royal Show.

Mr. Webb urged cool store associations to enter for the competition for the best pyramids of Apples and Pears at the Centenary Royal Show, in October. The exhibits would be housed in the new buildings, which had been erected at the cost of £6,500. He hoped there would be a splendid response from the fruit industry for this important show.

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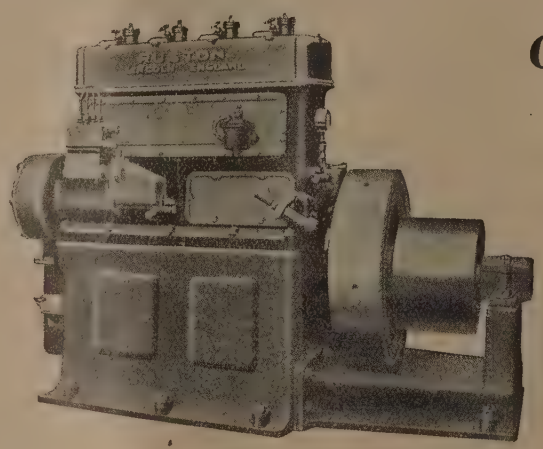

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PEARS IN COLD STORAGE

Life of W.B.C. (12 weeks at 32 deg. F., 7 weeks at 36 deg. F.—Recommended Temperature in ship's hold 30-32 deg. F.—Gas Storage Will Not Replace Cool Stores.

(By G. B. Tindale, B.Agr.Sc., Cold Storage Research Officer, Vic. Dept. of Agriculture.)

AT the recent conference of the Orchardists and Cool Stores' Association at Ringwood, on May 15, Mr. G. B. Tindale, B.Agr.Sc., Cool Storage Officer, Department of Agriculture, gave a valued address on the behaviour of Pears in cold storage and exhibiting graphs showing the rate of production of carbon dioxide gas from the Pear while in store.

The rate at a constant temperature is not uniform, but gradually increases to a peak, and then rapidly falls to zero when the Pear scalds. The time to reach the peak is the maximum storage life, at that temperature, for if Pears are removed from store after this, they cannot subsequently be ripened, but develop mealiness, core-collapse, etc.

At 32 deg. F., the Williams Pear has a storage life of 12 weeks; at 36 degrees F. the storage life was 7 weeks.

Pears on being removed from cool store should be ripened at a temperature of 65 degrees F. If Pears remained in cold store until they turned colour they could not be subsequently ripened, but remained hard and flavourless until decay set in.

There was better control over temperatures on land than on sea; 29 degrees F. was the freezing point for Pears. Hence the recommendation that the Pear storage temperature should be 30 to 32 degrees in ships' holds. Pears must be picked when hard green and are apparently ready to pick as soon as they are big enough for packing. The fruit should be placed into cool store as soon as possible, otherwise they would turn color and ripen in about six deys in hot weather. Pears showing colour should not be exported.

In shipments of Williams Pears from the Goulburn Valley, this season, the fruit had received every possible care and attention. Fruit by the first steamers showed no waste, then came a period when no boats were available and the fruit was held from three to four weeks in cool store, thus nearly half of the "export" life of the Pear had elapsed before being placed on the boats. As a consequence the fruit arrived wasty. The "export" life of the Pear is considerably less than its life in land store, as more uniform temperatures prevail in land stores.

Tasmania had more trouble with pears than Victoria because in Tasmania there are not the same pre-cooling facilities as in Victoria.

Continuing, Mr. Tindale stated that whereas the life of the Williams Pear was 12 weeks, other Pears have a much longer life. For instance Winter Cole and Winter Nelis could be held for six months in cold store. Each variety has apparently its own definite storage life irrespective of where grown.

A list was in process of being drawn up showing the varieties and their length of life in cold store. As a general indication it could be said that the earlier the Pears matured the shorter their life. and the ranges extended from three months with Williams to six months with Winter Cole and Winter Nelis.

* * *

Mr. W. A. Thiele stated that he had noted that with Packhams variety, if picked before maturity they would wilt with long storage. They kept best after ground colour had shown under the skin.

Replying to a question regarding gas storage, Mr. Tindale said that if a Pear would keep five or six months in low temperature, its storage life would probably be increased by an additional two or three months under the gas system, provided the temperatures were kept right. As we could get a sufficient storage life under present refrigeration system he did not see the necessity for gas storage.

Mr. J. J. Tully asked what temperature Mr. Tindale would recommend for the carrying of Pears overseas. Mr. Tindale replied favoring the lowest temperature possible, but left a margin of safety. If facilities were perfect a temperature of 29 degrees would be alright. A margin of at least three degrees was needed for safety.

In reply to Mr. McKinley, Mr. Tindale stated that surveys had been made of temperatures in ships' holds. These had shown that there were variations in temperature in various parts of a ship's hold, due to various causes, chiefly design and stowage. These variations were peculiar to each particular hold, and could not be overcome by the ship's engineer.

Mr. Frank Moore, in moving a vote of thanks to the speaker, urged growers to visit Mr. Tindale's experimental chambers at the Victoria Dock Cool Stores. He congratulated the Department on having the services of this valuable officer. He considered more money should be made available for this class of work.

The Keeping Qualities of Fruit in Cold Storage

VARIETIES OF FRUIT differ in their keeping qualities in cold storage, and fruit of any one variety, even when grown in the same orchard, may not be constant in its behaviour, but may vary from season to season depending upon (a) soil, (b) rainfall, (c) care in handling, (d) size of fruit, and possibly upon other factors.

Generally speaking, if the cool store is operated upon proper lines, very little loss will occur, always supposing that the fruit has been picked at the right stage of maturity and handled carefully. When light crops are harvested, and the fruit is large, it will not keep so well as when the crop is normal and the fruit is of medium size.

The information at present available concerning the keeping qualities of some of the main varieties of Apples and Pears is summarised below.

Apples.

Delicious.—If picked when well colored and placed in store straight from the tree, it will hold up well till October or November. Flavor improves in store.

Tasma.—A splendid storer, which keeps well till the last, except oversized fruit from young trees, which goes "sleepy."

Yates.—A splendid storer, which keeps to the last.

Dougherty.—Stores well sometimes, but not a very sound variety.

Granny Smith.—The general practice is to pick this variety in April and leave in well-ventilated stacks for about three or four weeks. The fruit is then wrapped in oiled paper, and placed in store. It holds well till December. This variety should never be stored except in oiled wrappers, otherwise scald is likely to develop when the fruit is removed from the store.

Rome Beauty.—Stores satisfactorily when well colored, but should not be held too long.

Rokewood and Crofton. — Both store very well.

Stayman Winesap.—Goes "sleepy" if held too long, and consequently should be cleaned up by the end of July.

Pears.

Packham's.—One of the best storers, but should have a tinge of yellow before picking, and should go straight into the store.

Winter Cole.—One of the best storers, but should go straight into the store from the tree if intended to hold for long.

Josephine.—Ripens quickly when it starts, and consequently should be closely watched. A very good storer.

Winter Nelis.—Very good storer.

Beurre Bosc.—Holds well for short storings.

Glou Morceau.—A tender skin variety, holds well, liable to blackening or marking after removal from store.—N.S.W. Agric. Gazette.

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Codlin Moth Control.

Intensive Research Work in U.S.A.

Tests With Various Oil Sprays.

THE NECESSITY for continued scientific research work into fruit cultural problems has been emphasised in these columns from time to time.

Appreciation is expressed for the good services so far rendered, and the hope is expressed that the research activities will be increased.

Doubtless growers can do much in this connection. By unity of action it is possible to influence public opinion in the direction of providing the necessity for making funds available for the study of specific problems.

We have before us the 43rd annual report of the Agricultural Experiment Station, State College, of Washington (Pacific Coast), U.S.A. This experiment station deals with agricultural engineering, agronomy, animal husbandry, chemistry, dairy husbandry, entomology and zoology, farm management and agricultural economics, home economics, horticulture, plant pathology, poultry husbandry, veterinary science, etc.

The director is Mr. E. C. Johnson, M.A., and in his annual report he refers to the dangers attendant upon drastic retrenchment.

* * *

Among the items of particular interest to "Fruit World" readers, the following may be mentioned:

Lead and Arsenic Residue on Fruit.

The spray residue problem was much intensified by the announcement by the Federal Food and Drug Administration in December, 1932, that fruit must be lead free as well as arsenic free. A large amount of work in fruit washing was continued throughout the year. Definite improvement was made in the effectiveness of washing solutions, particularly by the addition of small quantities of soap to sodium silicate solutions. The relative effectiveness of a variety of conditions and solutions was studied, including a comparison of brushes and rollers and of tandem washing. By some methods it has been possible to reduce the residue to an extremely low level, and to produce clean fruit. The washing methods and solutions were developed on a commercial basis.

Much information was obtained on the limits of accuracy of the chemical methods used for the determination of lead. It was shown that a large proportion of the very small amount of residue on Apples is isolated in the stem and calyx ends, which usually are not consumed.

Chemistry of Insecticides (Kermit Groves). Due to the high cost of lead arsenate and to the difficulty experienced in the removal of the lead residue from fruit, a study of other spray materials for the control of the codlin moth was made. Most of these materials were non-lead arsenicals, which were treated with substances designed to control the solubility of the arsenicals, under growing conditions, in such a way as to prevent tree injury, and yet keep the toxicity high.

* * *

Field experiments have not yet shown conclusively the superiority of any one variety of fish oil in promoting spreading and adherence of insecticides. Attention was therefore directed to studying the compatibility of different fish oils in spray combinations. The temperature of solidification, ease of emulsification, and other properties were determined.

Several commercial compounds that have given interesting results in field experiments were analysed.

Fruit By-Products.

A new concentrated Apple food product has been developed which retains the flavor of fresh Apples when reconstituted for such uses as sauce and pie. The product keeps for long periods of time and retains its flavor. This adapts it to home, hotel, and army use. The process of manufacture is simple and the packaging and transportation costs are low. The process is applicable to other fruits and vegetables. An application for a patent has been made. Definite progress also has been made in preparation of other products such as highly absorptive material, an improved pectin, and special sugars and acids of commercial value.

Oil Sprays and Codlin Moth.

In the investigations on oil sprays the various oils were used in combination with other insecticides and the spray treatments directed especially against the codlin moth.

Because of restrictions on lead residue on Apples for 1933 and the consequent necessity of investigating possible substitutes, most of the combination sprays were with other arsenicals than lead arsenate, although certain combinations with fluorine insecticides also were studied.

Mineral Oils.—Only highly refined oils for summer use were studied during 1933. These were used with calcium arsenate and with manganese arsenate.

Calcium Arsenate-mineral Oil. — One-half per cent. mineral oil was more effective in codlin moth control than one-quarter per cent. fish oil. Mineral oil did not break down calcium arsenate, and any injury that occurred was no more severe than with lead arsenate alone. The use of this combination with some brands of calcium arsenate, however, might result in injury, so that mineral oil cannot be regarded as a satisfactory corrective.

Manganese arsenate with one half per cent. mineral oil for six cover sprays gave results on worm control comparable to straight lead arsenate on Romes, but was less efficient on a block of Delicious trees. This quantity of mineral oil has a definite ovicidal value, indicating a lower effectiveness for manganese arsenate than for lead arsenate.

Oleic Acid. — Evidence was obtained that oleic acid is valuable when used with mineral oil and lead arsenate in producing a uniform spray deposit high in arsenic. Oleic acid cannot be used with calcium arsenate on account of injury. When several applications of this combination were used on McIntosh trees, the fruit was difficult to clean, even with sodium silicate in a brush machine at 110 deg. F.

Fish Oils.—Dogfish oil, herring oil, and sardine oil were used with calcium arsenate in 1933. Sardine oil with an antioxidant to inhibit drying was also studied. Very little difference in the arsenic load was determined with calcium arsenate. There was some evidence that the use of an antioxidant with drying oil may be a good practice, if it is economically feasible.

Calcium Arsenate-fish Oil.—Fish oils were found to be incompatible with calcium arsenate. Their use was accompanied by late season injury, heavy defoliation, and abscission of fruit. It was possible, however, to obtain about the same degree of control with calcium arsenate and fish oil as with lead arsenate when used alone.

Nicotine-fish Oil.--Some evidence was obtained both in the insectary and in the orchard that nicotine sulphate may be used with herring oil and give results fairly comparable to lead arsenate in control of the codlin moth. These two substances seem quite compatible.

Dutox (80 per cent. barium silicofluoride) was less effective than barium silicofluoride (95 per cent.) when these materials were used with dogfish oil for codlin moth control, both on Romes and on Delicious. Dutox was less effective than straight lead arsenate when this fluorine compound was used with dogfish oil. Barium silicofluoride with dogfish oil was equally effective as straight lead arsenate both on Romes and on Delicious. In these combinations three pounds of the insecticide were used to 100 gallons of water, to which one quart of fish oil was added. Six cover sprays were applied.

Vegetable Oils. — Five vegetable oils were tested with calcium arsenate. Considerable variation in deposit and control occurred, and the use of all vegetable oils resulted in severe arsenic injury.

Manganese Arsenate with one-fourth per cent. linseed oil seems to have had about the same degree of effectiveness as with one-fourth per cent. dogfish oil, but these combinations were decidedly less effective than straight lead arsenate, both on Romes and on Delicious.

Toxicity of Arsenicals.

Calcium arsenate appears to be dangerous with any of the animal or vegetable oils tested on account of injury. On the other hand, calcium arsenate with one-half per cent. mineral oil gave results somewhat better than lead arsenate used alone, and the injury was no greater in the case of the calcium arsenate.

Manganese arsenate was lower in toxicity than calcium arsenate. Vegetable and fish oils apparently do not increase greatly the effectiveness of manganese arsenate, as they may do with lead arsenate, and these oils also caused the arsenical to break down late in the season. Results were better when mineral oil was used, from both control and injury standpoints, than when fish oil or linseed oil was used.

Investigations in 1933 indicate that zinc arsenite may be safely used with an iron sulphate-hydrated lime mixture, but iron sulphate depresses the effectiveness if used in large amounts. A special iron-coated zinc arsenite preparation, used with fish oil, apparently is more effective than straight lead arsenate, and no more injury results to the fruit or foliage.

Zinc arsenate when used with fish oil apparently is nearly comparable to lead arsenate alone, but this material caused late season foliage injury.

Arsenic trioxide: Insectary tests show considerable variations in toxicity of crude white arsenic. It should be possible to use this material without causing arsenic injury.

Cuprous cyanide: Insectary tests with the codlin moth indicate that cuprous cyanide is inferior to lead arsenate. So far the results have not been sufficiently promising to merit orchard tests.

Correctives for calcium arsenate: Iron sulphate, copper sulphate, zinc sulphate, and aluminium sulphate were compared. Iron sulphate is apparently a powerful corrective, but in quantities used so far in our investigations this material has lowered the insecticidal effectiveness greatly and also interfered with color development. It should be possible to use this material in much smaller quantities.

Copper sulphate seemed to lower the effectiveness of calcium arsenate somewhat and caused a Bordeaux russeting of the fruit. Zinc sulphate and aluminium sulphate as correctives apparently hold similar positions. The control was satisfactory, and foliage and fruit were better than on any other plot in the orchard, including the lead arsenate check plots. Perhaps some factors not readily evident may be responsible for the favorable insecticidal results of the calcium arsenate-zinc sulphate and the calcium arsenate-aluminium sulphate combinations. One-half pound of these sulphates apparently was as good as one pound to 100 gallons and satisfactorily safened three pounds of calcium arsenate. A less amount may be satisfactory. Five pounds of calcium arsenate were used throughout the season on Apple foliage with perfect safety when one-half pound of iron sulphate was added.

As soon as a man becomes satisfied with himself and with what he has done, he has ceased to improve, and has begun to degenerate.—George Eliot.

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SOUTH AUSTRALIA

Mid-Murray Notes

Dehydration of Fruit . . . Cover Crops .. The Citrus Industry . . . . Manuring

(By our Special Correspondent.)

Renmark, May 17, 1934.—

AUTUMN is with us in all its splendor. Along the channel banks, where the Asparagus grows wild, now shows a fringe of golden, feathery thicket, its bright red berries give a festive tone to the scene, while that other weed, known locally as "Fat Hen," has decked itself in every shade autumn knows. From dark green, this weed turns to bright yellow, resolving into various shades to deep crimson, and has taken a place of honor in house decorations. Mulberry trees, Pear trees, Tamarisk Willows, vie with each other to outdo their more sober sisters, while the Poplar, lighted by the setting sun, raises its proud head like a well-corseted dowager looking down upon her menials. Renmark, seen from the 15th hole of the golf links, known as the "Birdseye," presents a mosaic long to be remembered. Absence of frosts has allowed leaves to hang and mature their autumnal tints longer than usual this year. Why are songs and poems of autumn invariably sad? Surely it is a time of rejoicing and beauty, and some day there will arise a new Australian poet and song writer, who will give this time of year its joyous praise.

Dehydration of Fruit.

In spite of this truly remarkable drying season, there are hundreds of tons of fruit which has had to be dehydrated. After a search for the cause of this, I have come to the conclusion that there will always be laggards, who, through some mismanagement, will ever be late in finishing off their fruit. In some cases it has been a lack of drying racks in proportion to the fruit to be dried, in other cases, the grower has not taken the fruit off the racks when it was ready to come off, and so missed the best weather for finishing off in the sun.

It doesn't pay to skimp with drying racks, for a break in the weather, even to the extent of a slight shower of rain, will deteriorate fruit to the extent of a grade, and sometimes two grades.

The best quality Sultanas are those picked in the early part of the season, when there is some "kick" in the sun, and while drying is relatively rapid, but when picking is carried on well into April, only medium or low-grade fruit can be expected. Last month's special irrigation has been the means of hundreds of acres going

under cover crops,

mostly Peas and Beans, but the dry spell has made them look sick, and if we do not get rain, a further irrigation will have to be considered. Peas planted in March, and having had the April irrigation as well, have made remarkable growth, standing waist-high and flowering profusely. These are now being ploughed under, and will have all the winter to decompose, thus making the nitrogen and organic matter available for the roots to feed upon when they begin to move in the spring.

In your last month's issue of "Fruit World," Mr. Parker raises a point (re the effectiveness of arsenical sprays), which has exercised the minds of Renmark growers for a number of years.

Without any scientific confirmation, it is commonly believed that the codlin grub has developed a certain amount of immunity if the arsenic is used at the strength advised by the makers. I made it my business this year to see most of our Pear growers, and, with one exception, it has been proclaimed one of the

worst years for codlin

infested fruit. The one exception being a grower who used the powder at three times the strength advised by makers.

Whether this procedure would leave a residue above that allowed by the health authorities I cannot say, but there seems a good deal of room for further experimental work with this pest. Mr. C. G. Savage, Director of Fruit Culture in N.S.W., who has recently been for a trip to U.S.A. and Canada, when asked if the Americans had anything to teach us regarding codlin moth control, stated that precisely the same methods were adopted in that country as are used in Australia, and that they had not yet found a substitute for arsenical sprays, when used in conjunction with white oil.

The Citrus Industry.

Mr. Savage gave an illustrated lantern lecture at Berri on the night of April 23 on his recent trip to America, on behalf of the Citrus growers of N.S.W. Production of Citrus had developed to such an extent in his State, said Mr. Savage, that it was imperative to find fresh markets. With this end in view, the Growers' Federation and Department of Agriculture sent him to U.S.A. and Canada as a trade ambassador. It was not the slightest use in sending immature fruit to this market; the buyers were used to the "Sunkist" Californian Oranges, which were of high quality, and if we were to develop the Canadian market to any extent, only the best, the fully matured fruit should be sent.

Shipments had been sent from Australia in the past with too high a percentage of acidity, which acted detrimentally to the sale of our fruit.

With proper organisation, and given good fruit, Mr. Savage was of the opinion that a good market could be developed in Canada. Among many and varied slides shown, were some of the date industry, in Arizona, Apple orchards in the northern States of U.S.A., and in Canada, ravages of fire blight, ways of irrigation by flood methods with contour banks, Apple orchards where no cultivation or pruning is done, yet good crops of fruit are produced, owing to favorable climatic conditions. Mr. Savage was warmly applauded for his interesting lecture, and welcomed by all his old friends in Berri, who filled the hall to overflowing.

Nearly all deliveries of fresh fruit have now been made to the distilleries, and orchard work is at a standstill, although there are many odd jobs to be found at this time of the year. The next thought comes for

the manuring policy

for the future. Owing to the low baume density of most of our distillery fruit this year, we are looking for a possible reason for it, and it may be found in a lack of soil balance, which could be rectified by the addition of phosphates, and, possibly, potash. Our growers are fully seized with the importance of growing green manure crops, but this must not be done to the exclusion of other necessary plant foods. Soils in our areas have a notable lack of phosphates, and where this is applied, together with either nitrogen from legumes, or artificial nitrogen, beneficial results are the outcome of such a combination. Although the analysis of our soils show a high percentage of potash, we cannot say what amount becomes available to the plant, and although a phosphate-nitrogen combination will liberate a certain amount, it is a debatable question whether sufficient is liberated for all requirements.

What has led me to suppose this possibility is the general lack of "body" in our currants over the past few years. A good color may be obtained with comparatively low baume Sultanas, but it is impossible to get

a good dried Currant

until the sugar is fully developed in the fruit; just as it is impossible to produce the best wine with low baume Grapes. The use of potash has been by no means

general in these parts, owing to the indefinite results upon the application of potash at the Berri Experimental Orchard trials, but many growers claim to have obtained good results with potash. It must be remembered that all soils may not be in need of this plant food, and it is one of those matters in which the individual grower has to be his own experimenter. Adverse climatic conditions cannot be blamed for the general lack of body in our Currants for several years past; we must look to a more balanced soil, in which each of the plant foods —nitrogen, phosphates and potash—are equally represented. A very valuable little book has been written by Mr. R. A. Boyle, M.Sc., on the matter of soil balance, and is called "Application of Fertilisers to the Orchard and Garden," and is distributed by the Nitrogen Fertiliser Co. This book will help every orchardist to understand a proportionate soil balance, and can be used as a reference. —"Nemo."

Thought for the Month.

I expect to pass through this world but once. Any good, therefore, any kindness or any service I can render to any soul or any man or animal, let me do it now. Let me not neglect it or defer it for I shall not pass this way again.—T. Carlyle.

Impossible is a word to be found only in the dictionary of fools.—Napoleon Bonaparte.

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"Black Leaf 40" has the endorsement of Agricultural Colleges, Experiment stations and orchardists. It is the World's leading aphis specific. It also kills the young larvae of many chewing insects when sprayed upon them so as to wet their bodies.

In the Orchard and Garden

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In the Poultry Yard

Paint the roosts lightly with "Black Leaf 40" just before the birds go to roost. Body-lice will be destroyed while the flock roosts. To help prevent mites from attacking fowls, tie or tack a piece of heavy cloth around ends of roosts and roost supports and saturate with "Black Leaf 40;" spray inside of house with "Black Leaf 40," three tablespoonsful to a gallon of water to which soap has been added.

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Re-Working Fruit Trees.

Tasmanian Grower's Opinion.

Mr. Frank Walker, of Launceston, made some interesting comment on the recent ban on varieties of export fruit, and the suggestion that the Federal Government should compensate growers for the loss involved.

"As a Northern grower," said Mr. Walker, "I have been very interested in the comment from correspondents in 'The Mercury' recently on the elimination of certain varieties, and would like to give my experience in this connection. I do not agree with the opinion that the Federal Government should compensate growers to anything like the extent suggested. All growers agree that too many varieties were being grown, and in the interests of the industry as a whole every grower must expect to bear his share of the cost, which does not involve the loss of crops for five years, as pointed out by one of the correspondents. Our experience extends over several years. We scrapped 14 varieties in one season, and in the last three seasons have put in over 600,000 scions. A concrete example of results is that two rows of medium-sized late Aromatic Apples, consisting of 50 trees, were re-worked in October, 1932. Each tree averaged 500 grafts, at a cost of £18/10/- for 50 trees. This season (1934) these trees are carrying 200 cases of Granny Smiths, and have been sold at 6/9, f.o.b., Launceston. The late Aromatics would not have been saleable f.o.b. at anything like this price, if at all."

"In October, 1933, we reworked a block of large trees of Pomme-de-Neige (88 trees), which averaged 1,000 scions a tree. We carefully checked one tree with 1,400 grafts, boys and men occupying 14½ hours. The cost was 10/6 for this tree. We confidently anticipate picking 15 cases of Granny Smiths from this tree in 1935.

(1) Pomme de Neige Trees just grafted to Granny Smith : 1,400 scions, October, 1933.

Labor Costs.

"Labor costs vary. The small boys receive 2/- a day, and the men up to 12/6 a day, which reduces the costs of treatment considerably, compared with the costs shown by one of the correspondents, and this was achieved with the loss on only one year's crop of Pomme-de-Neige. The success of this system has been acknowledged by several leading Southern growers, who have inspected our orchards this season. Trees reworked two or three years ago are now bearing heavy and consistent crops of marketable fruit.

"While not fully agreeing with the decision of the Apple and Pear Export Council as to the varieties and sizes of the eliminations made, it is a decisive step in the right direction, and I take it that the list, as it appears at the present time, is not by any means completed, and will be reviewed and altered until the ideal is reached.

"Elimination is not a question for the individual grower to decide, as growers are all naturally prejudiced in favor of the varieties which they are growing well. In order to settle the question, the best and only satisfactory method is for the Apple and Pear Export Council, in conjunction with each State Advisory Board, to submit the full list of the principal varieties in each State to the Wholesale Fruiterers' and Potato Merchants' Association in London, and ask it to reduce the list and retain only the varieties which are saleable.

Hint for Show Societies.

"I would suggest," said Mr. Walker, "that the various show societies in Tasmania eliminate most of the prohibited varieties from their schedules. It is not desirable to offer numerous prizes for varieties that are no longer exportable, and whose chief value lies in their domestic consumption. Horticultural societies could cater for these, and offer prizes for collections in various classes. They would still retain a place for home consumption.

"We have replaced over 1,000 Pomme-de-Neige, for which no f.o.b. buyer would offer payable prices, with Granny Smiths, which we can sell f.o.b. at payable prices, and produce at a cost which should be within the reach of most growers, who could do all the work themselves, with their own staff, without Government assistance. As our State Government is willing to assist unemployed, why not help the unemployed by allowing them to rework orchards on a 50-50 basis between the Government and the growers? This, I believe, has been agreed to."

(2) Pomme de Neige Trees at Lalla, N. Tas., grafted over to Granny Smith, Oct., 1933. Picture taken 6 weeks after grafting. Same trees as picture No. 1.

Generous Boss.

"The boss offered me an interest in the business to-day."

"He did!"

"Yes, he said that if I didn't take an interest pretty soon he'd sack me."

Apple Export.

Furthur Reduction of Varieties Recommended.

Additional Varieties of Apples which it is recommended should not be shipped from Australia are included in a letter from Australia House, London, to the Commonwealth Dept. of Commerce.

The department sent the letter to the Aust. Apple and Pear Export Council, the details being as follows:—

* * *

THE NEW REGULATIONS in connection with the export of Apples have produced a good impression in the trade here, and they have also relieved to a considerable extent the anxiety felt by the Ministry of Agriculture and Fisheries and home growers of Apples, owing to the late arrival and low price of Australian and New Zealand Apples last season.

The opportunity of the visit of Mr. G. W. Brown, of the Apple and Pear Council, has been taken to consult him as to the desirability of further restricting the varieties of Apples forwarded to this market, and, for your guidance, I submit below remarks on the varieties which, in our opinion, should next be dispensed with. It must not be understood that Mr. Brown necessarily agrees with these remarks.

Australian Beauty. Not an Apple of any fixed character, nor one likely to find favor on this market.

Adam's Pearmain. Although well known here, is subject to considerable variation in quality and condition, according to the State from which it is shipped. Cannot be regarded as a "good seller."

Aromatic. Carries badly, and is not popular.

Gravenstein. Although of pleasant appearance, is lacking in flavor, and subject to rapid deterioration. This variety is generally the first received from all exporting countries, but commands a moderate price only.

Geeveston Fanny. Looked upon as a hybrid. Although pleasant in appearance, the flesh is soft and flavorless. No demand here, and generally considered that this should have been one of the first varieties eliminated.

King Pippin. Although a good color, it is not popular with the British public, and it is doubtful whether its export is worth while.

Pomme De Niege. An Apple of poor quality, and an "unwanted variety."

Shoreland Queen. Lacks character, and would be better excluded.

Stone Pippin. Probably more acceptable as a culinary Apple.

Mobbs Codlin. Frequently mis-shaped and characterless, and might well be excluded.

Reinette Du Canada. A poor quality for any purpose, and its name misleading.

Alexander. Is not considered here a dessert Apple in any sense, but acceptable for culinary purposes, as are also the

Crow's Egg and Duke of Clarence.

Lalla. This Apple has not been long enough on the market for a definite opinion to be given. It is certainly attractive in appearance, but it cannot yet be said whether it will prove popular.

Arrangements were made to introduce Mr. Brown to the principal importers, and he was, yesterday, conducted around corporation markets at Spitalfields by the market superintendent.

(Sgd.) H. FARRANDS,
Acting Official Secretary,
Australia House, London,
22/3/34.

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MILLER PATENT CASE.

THE NEW "Miller" case for the export of Apples overseas is being tested this season.

The Department of Commerce granted permission for 1,000 of the "Miller" cases to be exported from Victoria, and 5,000 cases from Tasmania. The High Commissioner's office is being requested to obtain reports in London.

The inventor of this case is Mr. Cyril H. Miller, who for several years has been the pier representative of the Victorian Fruit Exporters' Handling Committee. The description of the case, as furnished to the Department of Commerce, is as follows:—

This case is guaranteed to have the same cubic contents as the standard Canadian shaped case. Owing to the fact that for shipping purposes the measurement of the Canadian shaped case is calculated by measuring the package across the bulge, the measurement of this case for shipping purposes is exactly the same, the only difference being that **the bulge is contained within the outside limit of the package to eliminate bruising, which may occur when the bulge is external.** Further advantage in this case is, as the top and bottom pieces which are bent to cover the bulge are not nailed or secured at their ends, when the fruit shrinks in carriage these boards automatically flatten out, and therefore eliminates the risk of a loose pack. The cleats reinforce the ends, and should the end pieces split, they are still held securely in position by the nailed-on cleats. There are no nails driven into the end grain of the timber in the package as in the usual type of Canadian shaped case, and it is well known that nails driven into the side grain of timber hold much more firmly than those driven into the end grain, and the package is therefore more secure than the original Canadian shaped case.

Exporting interests, packing sheds and inspectors of the department are definitely interested in this new box. The steamship companies, from the point of view of stowage, etc., are very favorably impressed, and the stevedoring companies who handle and stow fruit have expressed to me their opinion that from their point of view, it is the best case to handle that they have yet seen.

* * *

This new patent case was displayed at the recent Ringwood Conference by Mr. C. J. Parnham, and a favorable impression was created.

"You're looking bad, Sandy."

"Aye, I've been in the hospital and the doctors have taken awa my appendix."

"These doctors 'll tak' onything. It's a peety ye dinna have it in your wife's name."

VICTORIA — Association Reports . . . Items of Interest

The Victorian Fruit Marketing Association.

A MEETING of the executive of the Victorian Fruit Marketing Association was held at Melbourne on May 18. Mr. A. S. Harrison, vice-president, was in the chair.

There were also present (executive members) Messrs. K. V. Eagle, G. Douglas, W. P. Hutchinson, C. H. Jost, J. W. Bailey, W. H. Carne, W. A. Webb, E. I. Lawford, S. P. Cornish, J. B. McDonald, J. B. Mills, F. Cave, J. Barker, F. R. Mellor, and C. J. Parnham. Additional representatives—J. H. Lang (Harcourt), V. Lawford (Metropolitan), A. Simson (Ardmona), and J. D. Carpenter (Peninsula). Also Messrs. J. M. Ward and E. Meeking (Dept. of Agriculture), E. Whitlam (University), W. A. Thiele, J. W. Aspinall, and the Secretary, R. E. Boardman.

The chairman welcomed the new executive member, Mr. G. Douglas (Harcourt). In responding, Mr. Douglas spoke appreciatively of the good services of Mr. H. Ford, who had recently resigned for business reasons.

Space allocation. The chairman explained the constitution of the Fruit Exporters' Handling Committee—26 members, with a board of seven. In November of each year they had to give a space allocation forecast, although it was difficult to get definite information from growers. By December, the shipping companies required a practically definite statement of fruit space requirements, and the question was asked—could a proposed allocation committee more satisfactorily carry out the required responsibilities than the present handling committee.

Instances had happened where more space had been engaged than could be filled, and fruit had to be brought from another State to ship in the allotted space from Victoria. More authentic information was needed early from growers.

A letter was read from the Overseas Shipping Representatives' Association, stating that the matter of a proposed Space Allocation Committee required consideration, requesting an outline of the proposals, and asking whether the suggested committee would be representative of every shipper of fruit from Victoria.

Mr. Hutchinson asked as to the functions of the proposed space allocation committee, and who would take the responsibility for dead freight.

Mr. J. H. Lang explained some of the present disabilities,—where a shipper desired to increase his quantities because of good prices received, he was unable to obtain the extra space: the allocation of space should provide for agents to obtain their proportion on each boat, i.e., an agent having 10 per cent. of the export, should have 10 per cent. of the space on each ship: double banking in applying for space should be avoided: some shippers got a lot of space in early boats, leaving other shippers short: in consequence, much fruit was left on the trees, and lost this season.

Growers should accept their share of the responsibility. With a space allocation committee they could have an independent secretary, with a knowledge of all the space commitments, and thus arrange to transfer space from one to another as the need arose.

Mr. Mills pointed out that other refrigerated exports, meat and butter, were also short of shipping space. The Fruit Exporters' Handling Committee had to "take the bull by the horns," and engage boats before space had been booked by growers. The executive of that committee examined all applications, and arrived at reasonable and workable forecasts. Where improvements could be made, such should be attended to, and these would be welcomed, but sudden and radical changes were impossible, unless growers were prepared to become the contractual parties with the O.S.R.A.

Mr. Bailey spoke in favor of an Export Control Board. In the meantime, as O.S.R.A. would not accept space allocations from growers, a committee of growers and shippers could be formed to look after the trade.

Mr. F. R. Mellor stated, that as one of the oldest shippers, he had been dissatisfied with the space allotted to him. However, the Fruit Exporters' Handling Committee did not allocate space, they made the forecasts only, and shippers made their individual applications to shipping companies for the space. To arrange and rearrange space as suggested would mean much red tape: growers would need to fill in prescribed forms and be responsible for the space applied for. Readjustments in filling space on steamers was going on all the time mutually among shippers. Those not in the business would find it difficult to realise the rapid adjustments which had to be made in handling the export crop, and Room 10 at the railways sometimes had to work right through the week-ends to straighten matters out. After further discussion, Mr. McDonald moved:—

> "That in view of projected improvements in the organisation of the Apple and Pear export industry, the matter of space allocation committee be deferred for the present."

Mr. Cornish seconded.

Mr. Lang moved as an amendment:—

> "That in view of projected improvements in the organisation of the Apple and Pear export industry, the matter of space allocation committee be deferred for the present, but that a committee be appointed now to consider the best method of space allocation, and report to the V.F.M.A. as soon as reconstituted."

Mr. V. Lawford seconded.

The amendment was carried by seven votes to six, and on becoming the motion, was carried without dissent.

A committee was appointed as follows — Growers: Messrs. Bailey, Lang and V. Lawford. Shippers: Messrs. Mills, Harrison and Parnham.

V.F.M.A. Constitution. The secretary reported that the meeting to consider the V.F.M.A. constitution would be held on Friday, May 25, at 11 a.m. The E. Burwood Association had written asking for permission to be represented, and also making suggestions for the alteration to the constitution.

Fruitgrowers' Relief. Letters received from the Victorian Minister of Agriculture and from the Prime Minister's Department, Canberra, stating that, in the view of the Commonwealth Government, the term "necessitous" only meant that the grower must be genuinely in need of assistance, i.e., in any form of financial difficulty. If he could pay his way and had assets unencumbered he could not claim, even though having suffered losses on exports last year: but if in

circumstances of financial embarrassment, and had suffered losses on export, then he could claim. In other words, the term "necessitous" did not imply that the grower was indigent and in a helpless financial position.

Secretary's Report. The secretary presented a report, giving particulars of happenings since the last meeting of the executive on February 9, dealing with agents' liability, correspondence with N.S.W. Fruitgrowers' Federation, Harcourt Branch V.F.M.A., Apple purchase contract, constitution of V.F.M.A., and fruitgrowers' relief.

Agents' Liability. Mr. J. H. Lang gave a resumé of the legal opinion of Messrs. Rodda, Ballard and Vroland, summary being as follows—The transactions were under three headings: (1) F.o.b. sales, (2) Joint sales and consignments, (3) Consignment basis only. (1) was a matter of straight-out dealings between the grower and the local agent: the overseas trader did not come into the picture. (2) the sold portion was the same as in No. 1, and, as regards the fruit on consignment this stood on its own basis, and had no relationship to the purchased fruit; (3) With regard to the precise relationship of the overseas firm to the grower,—the overseas firm had a duty to account to each grower for the proceeds of the sale. In the absence of any pooling arrangement, the overseas firm must not offset the profits on one growers' fruit with the losses on another's. Where a local agent failed to pay the growers from money remitted from overseas, the grower had his remedy against the overseas firm, whose duty it was to pay him for the proceeds of his fruit. The failure of the local export agent was a matter between himself and his overseas principal. Such proceedings, however, would be long and costly. In order to relieve the grower from his present unsatisfactory position, an agreement had been drawn up, including an acknowledgement by the overseas firm that it is selling the fruit as agent for the individual consignors of fruit, and an undertaking to account to each grower for the proceeds of his fruit and to pay him, in Victoria, the amount due to him on such account. Growers should deal only with overseas firms of stability and honesty; a list of such could be drawn up, and the growers' association should be in a position to strike off the name of overseas firms who proved unsatisfactory. This could be done legally, where the association acted bona fide and without malice.

In reply to a question as to an agent going insolvent, would a grower have first claim on money remitted from overseas for the fruit. The answer was No,—unless it could be shown that the actual money used had been applied specifically, as, for instance, in the purchase of a house.

Another question had been asked—Would an agent be justified in withholding payment on consignment fruit if a loss had made on a joint account shipment? Answer—No, each arrangement stood on its own basis.

Mr. Lang was thanked for his able summary of the legal report. It was decided to furnish each member of the executive with a copy of the legal opinion.

N.S.W. Fruitgrowers' Federation. It was reported that the Emergency Committee had met to deal with a matter arising out of the publication in the official organ of the N.S.W. Fruitgrowers' Federation, dated March 14, of several articles deemed to be damaging to the V.F.M.A., and, particularly the letter from the president of the Orchardists' and Fruit Cool Stores' Association, which the N.S.W. paper adopted as correct. It had been decided to ask the N.S.W. Federation (1) If they approved of this article in their official organ, and (2) If not, what control they had over the policy of this paper. The federation had replied stating they were responsible for such of the matter published, which they authorised, but regarding other items, the paper had to accept its own responsibility. The federation expressed goodwill towards the V.F.M.A.

It was decided to reply to the Federation's letter, stating that the Executive endorsed the action of the Emergency Committee, and, that as sufficient had been done to direct the federation's attention to what was deemed an unjustifiable attack on the V.F.M.A., it would be desirable to close the correspondence, at the same time to thank the federation for friendly contact in the past and feeling sure of its continuance.

Proposed Arbitration. The secretary reported that, in accordance with request, he had sent arbitration papers to grower concerned for signature, but these had not been returned. No action taken.

Apple Purchase Contract. The South Australian Fruit Marketing Association wrote, requesting specimen Apple purchase contract, and stating they were obtaining these from the several States with the object of drawing up a standard form. Secretary reported that a specimen contract form had been sent to South Australia as requested. Action endorsed.

Reduction of Varieties. The Apple and Pear Export Council wrote enclosing letter from Department of Commerce, which included a report from Australia House. (Details in another column.)

Decided to include in monthly circular for perusal of members.

Co-operation With New Zealand. The Apple and Pear Export Council wrote enclosing copies of correspondence with New Zealand regarding mutual reduction of exports, also copy of letter to Mr. Bruce, Australian High Commissioner.

Mr. Mills detailed the basis of export restrictions, which had been the subject of negotiation with the N.Z. Fruit Export Control Board since the Sydney conference in November. New Zealand believed their system of grading to be of a higher standard than the Australian system: they were willing to co-operate with us, and realised the necessity for a common understanding. This subject was being gone into further in London, where Mr. Brown was attending the Empire Producers' Conference, at which N.Z. and other sections were represented.

Continuing, Mr. Mills said that he hoped that representatives of New Zea-

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land and Australia could get together, and arrive at a basis before the next Apple and Pear Council meeting. It was certain that Australia could not pursue her policy of limitation if New Zealand persisted in sending unlimited quantities of bountied fruit to the U.K. The result of the Empire Producers' Conference, at which Mr. G. W. Brown was Australia's representative, would have a considerable bearing on the whole export situation. There must be agreement between all the Empire countries which supply U.K. with fruit. On his return from Ottawa he had pointed out the concessions which Canada was prepared to make with regard to reciprocal trade in Apples between Australia and Canada. Further, Canada was considering the rehabilitation of old orchards, to be sure of being in a position to supply the British market with Apples, which otherwise would come from U.S.A. He, Mr. Mills, had conferred with Mr. Nesbitt, Australia's Trade Commissioner for New Zealand, and had given full details of the negotiations to date. It was difficult to believe that New Zealand could persist in a policy of unlimited exports of Apples to U.K., as the limitations decided on were common sense, and in accordance with the market demand. However, in the face of the Government Export Guarantee, it might become necessary for Australian fruit producers to approach the Federal Government for similar arrangements.

Timber for Cases. — The Australian Apple and Pear Export Council wrote enclosing letter from Department of Commerce in reference to a request from C. H. Tutton Pty. Ltd., for slight variation in the dimensions of fruit case timber for export, due to climatic shrinkage—where boxes for export were slightly under size, but yet within the 5 per cent. variation in cubical contents, provided that the boxes were originally imported correct to measurement. It was decided to defer this matter until all the items were under consideration for the next Apple and Pear Export Council meeting.

Miller Patent Case.—Letter received from Apple and Pear Export Council enclosing letter from Department of Commerce to the effect that permission had been granted for the export of 1,000 of the new Miller Patent Cases from Victoria and 5,000 from Tasmania. Details of the case were given, the bulge and cleates being within the walls of the case. The case took slightly less shipping space than the Canadian case with bulge.

Representation on Apple and Pear Council. — The Australian Apple and Pear Export Council wrote enclosing copy of letter from Mr. C. Little, Secretary of the Tasmanian Overseas Fruit Salesmen and Brokers Representatives' Association, regarding their lack of representation on the Council, Tasmanian shippers being represented exclusively by the Tasmanian Fruit Shipping Agents' Committee. Mr. Little pointed out that members of his Association handled a very large proportion of overseas shipments and represented most of the leading overseas brokers.

In the discussion it was pointed out that the Tasmanian system of allotting fruit space on steamers was different from that operating in any other State: while the matter of representation on the Apple and Pear Council was essentially a domestic one, it was thought that the Salesmen and Brokers' Representatives' Association might have the weight of the growers behind them in securing representation.

Fruit in Cool Store.—Mr. L. R. Francis wrote suggesting that all fruit should be out of cool store by December 31, and giving the following reasons:—(1) Low prices of new season's fruit, while old season's is on the market; (2) Those growers whose fruit is in cool stores which close about November or beginning of December are at a disadvantage with those which are running right through; (3) A good deal of the fruit is held by grower speculators who often buy from other States.

Decided to refer same to the Cool Stores' Association.

Re F. White, London.—Letter received from Premiers' Department, Victoria, acknowledging letter from the Victorian Fruit Marketing Association, requesting adequate superannuation for ex-Trade Commissioner, Mr. F. White, London.

Trade With Glasgow.—The Director of Agriculture (Mr. H. A. Mullett) wrote enclosing extracts from a report of the Agent General (Mr. Linton) on his visit to Glasgow. Detailed advices were included from six Glasgow fruit receivers, urging regular supplies to this market, varieties Delicious, Jonathan, Cleo., G. Smith, Sturmer, Democrat, sizes 2½ in. to 3in., or counts 138, 150, 163, 175, 198. Consignments of Oranges were particularly requested. Letter received.

Fruit Sold F.O.R.—Mr. W. J. Cox, Pomonal, wrote asking advices on the following point: "I sold a hundred cases of Apples to an agent, they had to pass inspection at my nearest railway station which was Stawell, I received notice of loading date for s.s. "Port Hardy," the fruit was forwarded to this vessel, which was unable to take it, the fruit was then sent to cool store, being shipped later on s.s. "Clan McDougal." On a settlement, the sum of £2/5/10 has been deducted for cool storage, and rail freight. Who should be responsible, the agent, the shipowners or myself? It was a sale free on rail."

— THE —
BAVE-U
Power Sprayer
— SINGLE ACTING MODEL —
This machine is thoroughly reliable and sturdy, and will supply two hoses at any desired pressure. It is moderately priced and represents the — best value on the market to-day. —
Write for full particulars
.. to the manufacturers ..
RUSSELL & CO.
ENGINEERS
Box Hill, E11, Victoria

Fruit Trees of Outstanding Quality
True to name, healthy and well-rooted. Citrus trees in large quantity—
Budding Wood supplied by the Bud Selection Society of N.S.W.—
Worked on Lemon, Sweet Orange, and Trifoliata Stock.
LARGE QUANTITY OF GRAFTED PECAN NUTS OF 12 VARIETIES FOR SALE THIS SEASON.
CATALOGUE FREE ON APPLICATION. ESTABLISHED 1901.
L. P. ROSEN & SON, Fernhill Nurseries
Pennant Hills Road, CARLINGFORD, New South Wales Phone: Epping 96

It was decided to reply that in the opinion of the Executive, the agent was responsible.

Spry's Appura.—The Secretary reported that several letters of enquiry had been received re pure Apple juice drink, and that these had been referred to Spry's Appura Company. Action endorsed.

New Members.—The following were elected members of the Association:—F. M. Anderson (Vermont), F. G. Beet and Son (Vermont), Bremner and Sons (Drumborg), S. A. Cracknell (Panton Hill), J. Dettmann (Beechworth), Dundas, Simson Pty. Ltd. (Ardmona), W. J. Franklin (Milltown), L. R. Francis (Croydon), R. L. Greenwood (Merrigum), M. Gill (Ringwood), F. J. Griffin (Beaconsfield Upper), Harris Bros. (Wantirna), G. C. Karnaghan (Blackburn), A. Keenan (Wattle Glen), M. Lowry (Shepparton), Lawford and Zerbe (Doncaster), R. E. Mathews (Dewhurst, via Emerald), Les. Milford (Harcourt), Ralph Morten (Main Ridge, via Red Hill), R. D. McCormack (Shepparton), Samuel Shanks (Upper Beaconsfield), A. W. Sanders (Doncaster East), F. A. Salter (Mikado Park, Garfield), E. Spinogliv (Shepparton), John Thatcher (Vermont), F. C. Wareham (Arthur's Creek), G. E. Mock (East Burwood).

Mr. J. W. Bailey.—The resignation of Mr. J. W. Bailey from the Executive, deferred from the previous meeting was again deferred, with Mr. Bailey's consent, until after the meeting on Friday, May 25.

Fruit TreeS
Fruit TreeS
Fruit TreeS

Best Obtainable—Catalogue Free

John Brunning and Sons
Somerville Nurseries,
Somerville — Victoria Australia.
Orchards & Nurseries 208 Acres.
Private Cool Stores, 17,500 Case Capacity.
Established 1866.

Mr. H. G. Colombie.—Mr. H. G. Colombie tendered his resignation as a member of the Association. This was accepted with regret, appreciation to be expressed for past services.

The meeting then closed.

WALLINGTON (Geelong) FRUIT SHOW.

The annual Wallington fruit show was held on April 7, and was opened by Mr. R. G. Casey, M.P. Appreciation of the advancement of the growing of fruit in the Geelong district was expressed by Mr. E. E. Pescott, of the Department of Agriculture, who was one of the judges. The principal prize-winners included Messrs. E. and C. Harding, who gained prizes for Apples, Pears and Quinces, and Mr. P. Ling, who secured prizes for Delicious and Stewart's Seedlings. Mr. F. J. Mullens had the best display of dessert Pears.

UNITED BERRY GROWERS' ASSOCIATION.

Monbulk.—The following office-bearers were elected at a meeting convened to form a Monbulk branch of the United Berry Growers' Association:—Mr. W. Evans, president; Mr. A. G. Fenwick, vice-president; Mr. A. Kay, secretary; Mr. T. Bowman, treasurer; Mr. A. Kay, delegate. Meetings will be held monthly, when intending members are invited to attend.

Somerville.—Mr. P. H. Curtis, of the Fruit Markets, Brisbane, addressed a meeting of the Somerville Fruitgrowers' Association in Mid-May. Mr. T. W. Brunning presided. He explained certain unfavorable conditions affecting primary producers in Queensland under the control of the Committee of Direction of Fruit Marketing.

Mr. A. A. Hammond, previously acting Chief Orchard Supervisor, Department of Agriculture, gave a valued address on the control of orchard pests.

It was decided to ask Mr. Kirton, M.L.A., to suggest to the Minister of Agriculture that all orchard inspectors act as inspectors of fungicides and insecticides, with power to take samples of spraying material throughout their districts for the purpose of analysis.

Mildura. — Mr. J. M. Balfour, chairman of the Victorian Dried Fruits Board, recently urged the Mildura district to have an exhibit at the Centenary Royal Show.

CODLIN MOTH MENACE.

Panton Hill.—At the monthly meeting of the Panton Hill and District Fruit Growers' Association, it was stated that the control of codlin moth was made difficult on account of neglected orchards. It was decided that stricter supervision was necessary, and to advise the district inspector accordingly.

Merbein (25/5/34).—31,457 cases of fresh Grapes have been despatched from the Merbein Railway Station this season, as compared with 23,127 cases to a corresponding date last season.

An effective winter wash for fruit trees is "Vallo" Ovicidal wash. The using of this wash obviates the necessity of spring spraying for aphis. For full particulars see the advertisement in this issue of Messrs. Victor Leggo and Farmers Ltd., Melbourne.

EAT MORE FRUIT.

Mrs. J. Green, of Leeton, Wants More Canned Fruit to be Consumed in Australia.

CONGRATULATIONS to Mrs. Judah Green, president of the Leeton Branch of the Country Women's Association for her splendid campaign to increase the sale of Australian canned fruit to housewives. Mrs. Green was in Melbourne on this mission during May, and received encouraging support.

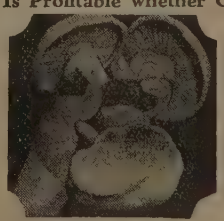
WESTERN AUSTRALIA.

Bridgetown.—Owing to the lack of support in the fruit section at the recent Bridgetown Show, suggestions are being put forward locally that the Agricultural Society should conduct a fruit show only in the Mechanics' Hall.

SINCOS

The Ideal Bordeaux Paste
A CLEANLY ECONOMICAL and EFFECTIVE NON - BURNING FUNGICIDE.
—*—
Manufactured by—
The Bordeaux Chemical Co.
4 Glenbrook Av., East Malvern.

Mushroom Growing
Is Profitable whether Grown as a Hobby or Commercially.



Add to Your Income by Growing Mushrooms.
Send 2/6 Postal Note and we will send by return mail our 1 lb. packet — enough for 26 sq. feet.
"SPANIARD" BRAND SPAWN
This Can Produce Over 50 lbs.
R. MAS No. 1 Wharf, Circular Quay
SYDNEY

Fruit Tree Nurserymen.

Vigorous Speeches at Fruitgrowers' Conference.

Resolution Adopted Opposing Proposed Grade Standard.

MR. G. W. PEART.
President, Nurserymen & Seedsmen's Association of Victoria.

FRUIT TREE NURSERYMEN are pleased that their objections to the proposed tree grading standards were endorsed by growers at the conference of the Orchardists' and Fruit Cool Stores' Association of Victoria, at Ringwood, May 15. The following resolution was carried:—

"That this Conference urges the Department of Agriculture not to take action to enforce grading or registration of fruit tree standards, fully recognising the harmonious relations between orchardists and nurserymen which at present exists."

This resolution was carried unanimously. The conference was a thoroughly representative one, and fruit tree nurserymen feel that this matter has now been effectively disposed of.

* * *

The detailed story of the proceedings is as follows:—

At the request of the association, an address on the standardisation of fruit trees was delivered by Mr. F. M. Read, M.Ag.Sc., Senior Horticultural Research Officer, Victorian Department of Agriculture.

Mr. Read traversed the situation from the time when only seedlings were used until the present stage of worked trees, mentioning the importance of bud selection, Citrus stock investigation, and the necessity for investigation of stocks for Apples, Pears and other trees. Apparently, there were two different strains of Northern Spy stock masquerading under one name. Legislation for the standardisation of nursery material had been sought by producers. Queensland and New Zealand had adopted grades for fruit trees as regards their being true to name and possessing certain qualities as to thickness of stem, shape, top and root system. In this connection, no standards had so far been set by the Victorian Department of Agriculture, but such could be worked out between the nurserymen and the growers. Certainly, no unreasonable standards would be proposed. If other States adopted standards only the best trees could be sent there, leaving the poorer types of trees in Victoria. Regulations in other States regarding fruit tree standards were probably too harsh. Victoria was the main nursery State for Australia. The standardisation of fruit trees would doubtless be to the benefit of fruit tree nurserymen.

Mr. G. W. Peart, president, Nurserymen and Seedsmen's Association of Victoria, stated that at least 85 per cent. of the deciduous fruit trees going into Queensland were from Victoria, and the trees were entering that State without question or reference to grade standards, the trees not being specially selected for the Northern State. This disposed of the idea of the observance of grade standards. It should be remembered that nurserymen were also fruit growers, and were closely in touch with growers' needs. Some growers required short-stemmed trees, others wanted long-stemmed trees, others again asked for rods. Yearling trees were best. Commercial growers were not interested in the defining of standards for three and four-year-old trees, as had been recently set forth. Growers were now protected, continued Mr. Peart, as they had the right to return trees deemed to be unsatisfactory. The enforcing of grading regulations would not give growers any better trees than they were getting at present. Eighty-four per cent. of the deciduous fruit trees sold in Australia were produced in Victoria. As New Zealand had been mentioned, it had to be remembered that fruit trees there cost 50 per cent. more than in Victoria. He did not think growers generally would relish paying a higher price because of the enforcement of certain regulations. "Our standards are now high," stated Mr. Peart, "the trade has been carried on successfully for many years, the demand for Victorian trees is increasing, and there is no justification for the Government to step in with regard to this matter. We select buds with the utmost care, and do everything humanly possible to provide a satisfactory article. In obtaining buds for Pullar's Cling, Golden Queen and other Peach trees, nurserymen go to certain approved orchards to obtain the best buds."

In conclusion, Mr. Peart pointed out the impossibility of arriving at State-wide standards, because of the differences in soil and climatic conditions. Heavy rainfall in the first four months of 1934 had produced large trees in Gippsland. In other areas, with a dry season, the trees were smaller, but this did not necessarily have any bearing on their quality for commercial planting.

Mr. J. M. Ward, Superintendent of Horticulture, stated the department had received requests for the standardisation of nursery stocks, and the registration of nurseries as far back as 1909. At an Interstate conference of nurserymen several years ago, a resolution had been carried requesting all States to bring in legislation to have nurseries registered, and for control of the sale of trees, plants, etc. In 1932, the Mildura Horticultural Society requested the control of the sale of trees. Grade standards were requested by the 1932 conference of the United Country Party, and the department was in receipt of many similar verbal requests. Continuing, Mr. Ward stated that Citrus growers particularly desired this legislation. Grade standards would benefit nurserymen by keeping the poorer stuff off the market. The department did not initiate this matter, and had no desire to foist anything on to fruit tree nurserymen. If growers were satisfied with the present conditions, well and good; the department had a duty to bring this matter forward. He stated there had been trouble with one order of trees sent to Queensland, and some trees had been sent back. He had personally seen, while in Queensland, some poor quality trees from Victoria heeled in.

Mr. H. E. Napier (previously manager of the N.Z. Fruitgrowers' Federation) said that he favored standardisation, though the trees were more expensive. When ordering from Victoria, buyers had no standards on which to order. They would buy first quality if standards were adopted.

Mr. C. L. Nobelius said that with bud selection, one had to select the buds over many years. The selecting of buds of Washington Navel Oranges was a highly technical process. It might take three generations before varieties could be properly set.

Mr. G. Fankhauser, in moving the resolution that the Government take no action in this matter (as quoted in the opening paragraph), stated that he had not heard complaints with regard to inferior fruit trees being supplied by nurserymen. There were, however, plenty of complaints with regard to the quality of spraying materials. Registration of nurseries would raise prices for trees. Growers were familiar with their own requirements as regards fruit trees, and obtained satisfaction from nurserymen.

Mr. T. White, fruitgrower, Somerville, said that the grading of fruit trees would indeed prove to be a "tough problem," because the trees themselves had different habits of growth, and, again, they varied greatly on different soils. If a strong growing "Reinnette" became the standard, would the smaller growing but equally sturdy Jonathan be placed in a lower grade? Trees responded differently in different localities and varying soils. On one occasion he had planted out a row of Tasma (Democrat), and alongside a row of Worcester Pearmain. In a wet winter the last-mentioned were killed out, while the Tasma

FRUIT GROWERS!

Your Spring Dressing of

Sulphate of Ammonia

should be BALANCED with

Phosphate and Potash

Thus :—

IRRIGATION AREAS:

4 : 4 : 1 4-8 lbs. per tree

Super Ammonia Potash

COASTAL AREAS:

2 : 2 : 1 4-8 lbs. per tree

If *Potash* is not desired, use
1 : 1 Super and Ammonia)

These Mixtures are obtainable from
ALL MANURE COMPANIES
ALL PACKING SHEDS
ALL AGENTS

H3/34

grew splendidly. Democrat was a first-class tree in a heavy soil. Williams Favorite preferred light soil. The only way to grade fruit trees was to make a grade for every variety. Fruitgrowers had been treated very well by nurserymen, and the proposed grade standards were unnecessary.

Mr. L. Cole, nurseryman and fruitgrower, Tyabb, said he had attended every important fruitgrowers' conference since the war, and on no occasion had he heard of any request from fruit growers for grade standards for fruit trees. He believed in bud selection. His firm gladly worked trees from buds which the growers themselves supplied. Growers were quite capable of propagating their own trees, and would probably do so if prices were unduly raised. By ordering in sufficient time growers could obtain from nurserymen any type of tree they wanted. The great competition between the fruit tree nurserymen ensured a high standard for trees. Victorian nurserymen were producing the best fruit trees in Australia. The proposed grading regulations would add considerably to the cost.

Mr. W. A. Thiele, fruitgrower, Doncaster, said that growers had had to put up with indifferent stocks for Pear trees. No tree from seed would come true to stock. Some nurserymen were working on Golden Beurre, others with seeds of Kieffer, but the difficulty with varieties on Kieffer stock was that, after making good trees and bearing for a short while, there was a tendency for the trees to suddenly die out. There was a need for intensive research work with regard to stocks for Pear trees. This, however, was a separate matter, and he could see no good purpose in legislation for fruit tree standards.

Mr. W. Brunning, nurseryman and fruitgrower, Somerville, stated that the grading of fruit trees would increase the list of Government officials, making the load heavier for taxpayers, and would raise the price of the trees.

Mr. G. W. Peart, in reply, stated that tests were being made with various seeds for Pear stock, including Pear seed from France.

Concerning the trouble over the Queensland order, Mr. Peart said that the trees were not blocked by the Department's official there for failing to comply with that State's grading regulations, but because the planter disliked portion of the number supplied, heeled some in, and sent a few back to Melbourne.

Mr. J. B. Caldwell, Somerville, asked how many East Malling stocks planted in Tasmania had failed. Trees from the northern hemisphere were not necessarily suitable for Australia.

A vote of thanks was passed to Mr. Read for his address.

In reply, Mr. Read stated he was interested in research work on fruit tree stocks, and looked forward to continuing this work in co-operation with growers.

Citrus News and Notes.

Citrus Growers' Problems

Activity in New South Wales

Equalisation Proposals Not Approved.

Leeton.

THE meeting of Citrus Growers at Leeton on April 30 was one of the largest ever held, the meeting room being uncomfortably crowded. Mr. A. G. Enticnap presided.

Mr. J. Gordon and Mr. Inman reported on recent events in the citrus industry.

Mr. Braithwaite moved that representations be made to have two representatives from the M.I.A. on the Federal Citrus Council, such representatives to be citrus growers, and that attention be drawn to the total production of citrus in N.S.W. compared with other States, which entitled N.S.W. to have equal representation on the Federal Citrus Council.

Mr. Phelps seconded.—Carried.

With regard to irrigation water for citrus groves, a Committee was appointed to wait on the authorities regarding facilities for late watering in May.

Mr. Gordon's Report.

Speaking at the meeting of citrus growers at Leeton on April 30, Mr. J. H. Gordon said that in order to make certain enquiries he had visited South Australia, Victoria and Southern N.S.W. He attended a meeting in Melbourne representing most of the Victorian fruitgrowers' organisations, when proposals for on Orchard Tax, and the creation of Boards for the several sections of the industry were not adopted, but referred back to the Committee. Mr. A. E. Hocking of the Cool Stores' Association, had said that some form of control was necessary in the fruitgrowers' interests.

Continuing, Mr. Gordon explained that Mr. Hocking was "something to do with the Country Party, and was known in Melbourne as a Collins-street farmer." (Laughter.)

Mr. Gordon stated that in Mildura, as in South Australia, there was no overproduction of high quality citrus. With regard to control, the investigation undertaken by Mr. A. U. Martin on behalf of the Western Australian Fruitgrowers' Association was full of interest. "Compulsory" co-operation was deemed self-contradictory. The report covered organisations and "Boards" in the several States and W.A. fruitgrowers were solidly against control proposals.

A vote of thanks to Mr. Gordon was carried unanimously.

Citrus Growers' Defence Association. Lisarow.

A meeting of the Citrus Growers' Defence Association was held at Lisarow at the beginning of May. Mr. R. Hill, who presided, said that Lisarow growers had exported four or five thousand cases of Oranges to England last season: the first three shipments had failed to bring the growers a 2/- piece, though everyone except the grower got 100 per cent. value for their labor. The Government had planted largely in the Irrigation Areas with no thought of marketing the produce. If anyone provided a subsidy it should be the Government: if a guarantee of 5/- per export case were offered growers would export fast enough.

A telegram was read from Mr. J. E. Ward, M.I.A.: "Best wishes for meeting; Area Citrus growers stand by their coastal brothers to defend at any cost our birthright of British liberty."

Mr. Bert Moore moved that an emphatic protest be entered against the Equalisation scheme, and that the resolution be sent to both State and Federal Governments. Mr. W. J. Black seconded. Carried unanimously.

On the motion of Messrs. Hill and Tooby, it was decided to ask the Federal Government to guarantee 5/- net per export case for all citrus fruit sent overseas until such time as a profitable market could be found.—Carried.

Petition to Governments.

The following petition was signed by the 100 growers present:—

"(1) That the growers are opposed to the appointment of a Citrus Board, or to any legislation that will force them to pay a case levy for export; (2) that the export experiments of the past year have shown a loss despite the Government subsidy; (3) that the failure of the overseas market has been due to a glut from other countries; (4) that existing conditions do not favor extension of export; (5) that the growers will refuse to sanction any scheme that had failed to bring relief and was calculated to increase the burden of taxation."

It was further decided to add the request for 5/- per case subsidy to the petition.

One Grower Opposes.

Mr. F. O. French (Lisarow) put the other side of the question. He said the Equalisation Board was to have been a Growers' Board: the idea was to dispose of all the citrus fruit on the market. All Boards were not bad. When the poultry farmers lost their Egg Board recently, those in the main egg producing districts were in favor of setting it back again.

Stormy Meeting at Gosford.

There was a stormy meeting at Gosford on May 17, at the annual conference of the Central Coast district of the N.S.W. Fruitgrowers' Federation. Twenty-six districts were represented. Mr. R. Hill presided. The storm arose over the number of delegates to represent Lisarow at the annual general conference in Sydney. Mr. E. E. Herrod, Secretary of the Federation, said that two representatives were allowed. The President refused to accept the number, and growers from Lisarow and Narara left the hall in a body. Mr. Hill thereupon resigned the chair.

Mr. A. S. Brown (Ourimbah) was elected chairman, and the conference adjourned.

The following were appointed delegates to the annual general conference: Messrs. G. C. Linton, A. S. Brown, A. E. Lillicrap, T. C. Morrison, H. G. Nell, W. A. Cleary, W. Caldwell, W. Cowlishaw, G. J. Skiller, and D. N. Smith. Board members will be Messrs. A. S. Brown and A. E. Lillicrap.

Annual Meeting at Griffith.

So keen are growers on the subject of organisation that over 100 growers attended the fruitgrowers of the Griffith branch of the N.S.W. Fruitgrowers' Federation on May 22. Mr. Lasscock presided. Delegates were appointed to attend the Leeton Conference as follow:—Messrs. Connor, Fenn, Holroyd, Neville, Dreyer, Savage, Ward, Erskine, Andrea and Bosanquet.

Resolutions were carried: (1) opposing the statutory control of fresh fruits.

Requesting regulations to eliminate the very low grade of fruit which constantly depreciates market values.

That bags be prohibited as containers for marketing citrus fruit.

That the Board of the Federation provide money to enable branches to call district meetings.

That the Federation offer a prize of £25 for the purpose of discovering the

most effective control of the codlin moth without the use of arsenate of lead.

That this meeting of growers protests against the action of the Board of the Fruitgrowers' Federation granting £100 to pay for the collection and canvassing of votes in the recent dried fruits poll.

N.S.W. CITRUS CROPS.

IN THE LATEST reports issued by the N.S.W. Department of Agriculture, the following is stated:—

Citrus: Throughout the coastal districts there was considerable rain, which generally had a retarding effect on growth. Coloring and sizing of fruit was not satisfactory.

Navels are being marketed freely from groves in the Hawkesbury River district; the fruit is fairly well colored. Some very fine crops are in sight in the Moorlands district, and harvesting is proceeding. From most other districts fruit is being marketed.

With the exception of a fairly heavy shedding in the Hills district, the Valencia crop prospects are unchanged. It is expected that large consignments will be sent to the English market, particularly from the Gosford district.

Fair quantities of Common Oranges are being forwarded to market, but in many instances the sugar content is not yet satisfactory.

Some heavy crops of Lemons are in sight, but harvesting has been curtailed owing to the low prices offering.

The bulk of the Imperial Mandarin crop has been harvested in the Hawkesbury district. Generally, Emperors are developing very satisfactorily, but they are not forward in color.

On the Murrumbidgee Irrigation Area the Navel crop is stated to be maturing early; fruit generally is of large size, and excellent quality.

The heavy Valencia crop is not sizing satisfactorily, and it is likely that the fruit will be smaller than usual. At Griffith, heavy yields of good-quality Lemons are in sight.

A RECENT REVIEW of the N.S.W. citrus crop from the Director of Marketing, Mr. A. A. Watson, gives the following information.

Generally good Navels should be marketed—oversized where crops light: the Valencia yield should be heavy.

Gosford.—Heavy Valencia yields anticipated, and as the fruit is mostly larger than usual early estimates of production are likely to be exceeded. Although the Common Orange crop is lighter than last year, the fruit is extra fine, particularly in the Terrigal locality. The winter crop of Lemons is coloring. Considerable quantities of Valencias and Joppas and some Navels will be exported.

Wyong.—The Navels sizing well. Some trees heavily laden. Slight losses from rot have occurred. Valencias are of good even size and crops range from light to heavy.

Windsor.—Navels promise to be of good quality and size. Commons developing satisfactorily, particularly where Joppas are lightly cropped. Good Mandarin crops are expected where attention has been paid to the crops.

Hills District.—Mandarin crops were adversely affected by the weather, but other citrus crops benefited.

Navel crops are fairly satisfactory, and particularly good crops of Valencias appear general, while much of the moderate crop of Common Oranges is expected to be oversize. The Seville yield will be light and lacking in quality. Mandarin crops range from light to medium. In parts of the district a fairly heavy setting of intermediate fruit is showing. Lemon crops are growing well. Some marketing of Grapefruit is being carried out in the Maroota centre.

Kurrajong.—Oranges developing satisfactorily. Heavy crops of Valencias anticipated. Sevilles light: Lemons medium to good.

Moorland.—Navels, good crop. Valencias promise very satisfactory yields. Mandarins patchy.

Emu Plains. — Navels medium, but quality excellent. Commons patchy:

The "HARVEY" CITRUS GRADERS AND DRY POLISHER BRUSHERS

Sizes Accurately—Eliminates Bruising

Fitted with Special New Type Grading Element

With Double-edged Grading Units, which include Soft Cushion Rubber Sections; also Rubber Rollers running on Ball Bearings, which are adjustable to one-sixteenth inch, one-eighth inch, or any size grade desired. Each grade is adjustable without interfering with grades on either side.

Model 11A Citrus Grader, equipped with Automatic Feed Hopper, Roller Elevator, Sorter, and Two Run-way Citrus Dry Polishing Brushes.

COMPLETE WET AND DRY LATEST PROCESSING EQUIPMENT

Including Soaking, Wet Scrubbing, Sterilizing, Drying and Dry Polishing Equipment, Sorting Tables and Graders to Give 2 or 3 Qualities.

Built to Suit the Requirements of

CITRUS GROWERS AND PACKING HOUSES

D. HARVEY, Orchard Implement Specialist, BOX HILL, VICTORIA

INTERSTATE REPRESENTATIVES:—

New South Wales.—Buzacott & Co. Ltd., 7/11 Market Street, Sydney.

Queensland.—Clark & Fauset Ltd., 73 Eagle Street, Brisbane.

Tasmania.—Max Geeves Pty. Ltd., Davey Street, Hobart.

„ Clements and Marshall Pty. Ltd., 119 Cimitiere Street, Launceston.

„ Harry Murray, Devonport.

Valencias light to medium. Mandarins patchy. The area under Lemon trees has declined since 1932, but the remaining trees are carrying fair to medium crops. Small areas of Grapefruit trees are well cropped.

Seven Hills.—All citrus trees in splendid condition and development is satisfactory. White Silettas are coloring rapidly and will be of a good size.

Wiseman's Ferry.—Navels of medium size, clean and of good quality: the Thompson's look well. Valencias will be small to medium sized. Silettas are of good size and quality, clean and well forward in color. Mandarins satisfactory, also Lemons.

Narromine.—Navel, Valencia and Common Orange crops are light. Navels are inclined to good sizes. Lemon crop normal. Grasshoppers caused damage to cover crops of tick beans in this area.

Forbes.—A good crop of Golden Buckeye Navels being harvested. Valencia and Commons practically a failure, while other varieties such as Washington, are lightly cropped, fruit very large. Lemon trees are not carrying any main crop, but promise a good second crop.

Dubbo.—Navels light, Valencias fair, and Commons have better yield prospects. Lemons light. Mandarins moderate. Grasshoppers and bean bugs have caused heavy losses in some groves.

Murrumbidgee Irrigation Area.—Generally prospects have been maintained. Navels give promise of maturing early, and other varieties of citrus fruit are carrying good crops, particularly Valencias, which promise heavy yields in some groves.

Mildura and Curlwaa. — It is expected that the citrus crop in Mildura and the Curlwaa districts this season will be 450,000 bushel cases. The average increase of 5 per cent. has been taking place annually for several years.

Bud Selected Citrus.—Citrus trees that are reliable and well rooted, grown from budding stock supplied by the Bud Selection Society of N.S.W., are available from the nurseries of Mr. A. T. Eyles, of Rydalmere, N.S.W. These trees will be packed and dispatched to any part of the world.

Merbein (Vic).—For the year ended April 28, 218,078 cases of Citrus fruits were despatched from the Merbein Railway Station, as compared with 143,130 in the 1932-33 season, giving an increase of 74,948 cases.

	1932-33. Cases.	1933-34. Cases.
Oranges	128,451	197,572
Lemons	3,528	6,925
Mandarins	7,600	8,875
Grapefruit	3,551	4,706
Total	143,130	218,078

SORE SHOULDERS ON HORSES

"THE SUCCESSFUL prevention of sore shoulders is wrapped up in close attention to the following matters," says Mr. A. H. Robin, B.V.Sc., S.A. Government Veterinary Officer, in the Sth. Aust. Journal of Agriculture.

1. Proper and gradual "conditioning" of the animal for work. As an aid to hardening or toughening the skin of the shoulders, these parts can be swabbed daily with a strong solution of salt or a decoction of wattle bark, immediately after removing the collar.

2. Proper Fitting of the Collar. Every horse requires to have his own collar, which should be properly and carefully fitted to him, and any necessary adjustments should be made from time to time, as the horse gains or loses in flesh. Remember, that a collar that "fits" a horse when he is in good flesh will not fit him when he gets poor, and, vice versa.

3. The shoulders where the collar sits must, by regular daily grooming (before the day's work is begun), be kept clean and free from accumulations of dried sweat, grime, etc., that are likely to set up chafing of the skin. Likewise, the linings and stuffing of the collar should by regular attention, be kept clean and soft, instead of being allowed to become caked and hard with sweat, grime, etc.

CALIFORNIA BOOSTS HER ORANGES.

Huge Pageant at Riverside on May 4, 1934.

The pageant is recognised as an outstanding Californian event, as it celebrates the 61st anniversary of the planting of the parent Navel Orange trees.

Features included field day exercises by 5,000 school children, a Navel Orange golf tournament, the annual Navel Orange Dinner, and a Navel Orange Ball. The main event was the pageant parade, consisting of floats depicting every phase of the Orange industry, from the planting and care of the trees to the packing and marketing of Riverside's famous brands of fruit, bands and marching groups.

Twelve periods of Californian history were depicted by the historical division, and a tableau of the arrival and planting of the parent trees by Mrs. Eliza Tibbets, were presented in front of the grandstand at the stadium after the parade.

Riverside junior college students elected the pageant queen, and her maids of honor, to ride at the head of the parade and appear in costume at dinner and ball.

The surviving parent Orange tree, which still bears fruit in its shrine on Magnolia-avenue, has been termed by the U.S. Department of Agriculture, "the most valuable fruit introduction yet made by this department."

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Oranges for Export

Shipment of Only Five Counts Recommended.

AN IMPORTANT FACTOR in the exporting of Oranges to the United Kingdom this season will be the limitation of sizes or counts.

For the information of intending exporters, it is suggested by Mr. B. Krone, Fruit Packing Instructor, Vic. Dept. of Agriculture, that only five counts be shipped to London. These are 216's, 200's, 176's, 150's, and 126's. Counts smaller or greater than these will not find favor in the London markets. Details of the counts are as follows:—

Orange Export Case.

(Inside measurements, clear of the division, 24 x 11½ x11½ inches.)

Size.	Pack.	Layer.	Layers.	Total.
2⅞ in.	3-3	3 x 3	6	216
2⅞ in.	3-2	4 x 4	5	200
3 in.	3-2	4 x 3	5	176
3⅛ in.	3-2	3 x 3	5	150
3¼ in.	3-2	3 x 2	5	126

These counts will come in rotation from a sizing machine, if the rollers of the machine are set 1/32nd of an inch larger than the sizes specified above.

Specifications of the timber required to make the Orange export case:—

Ends and centre—3 pieces—11½ x 11½ x 11/16ths ins.

Sides and bottom——6 pieces—26 1/16 x 5¼ x ¼ ins.

Lid—2 pieces—26 5/16 x 5¼ x 5/32nds or 3/16 ins.

Cleats—2 pieces—11½ x ¾ x ¼ ins.

He who said: "There is no sentiment in business," forgot that business everywhere is conducted by human beings.

Answers to Correspondents

Sulphuring of Grape Vines: "A.T.S.," Coominya, Queensland, writes:—Can you supply me with information regarding the sulphuring of Grape vines, the right periods to give applications? We lose heavily in wet seasons—the berries just seem to rot.

Answer (by F. de Castella, Viticulturist, Vic. Department of Agriculture).—Sulphuring—or dusting with powdered sulphur—is the standard treatment for the control of Vine Oidium (Uncinula spiralis). It has but little effect, however, on other vine fungi. Against oidium, a first sulphuring should be given shortly after sprouting in spring, a second application at blossom, which process benefits therefrom, and, subsequent ones, should the disease again make its appearance. Full particulars concerning sulphuring and the control of oidium will be found in bulletin No. 50, obtainable from the Victorian Department of Agricltture, price 3d., or 4d., if posted.

GETTING ON HIS QUINCE.

Orchard Raiders Embarrassed.

Spicy Doings on the M.I.A.

A settler returning home the other night noticed a group outside his orchard fence. Thinking they may be fruit thieves he turned the headlights on to them, and behold a scene that would add spice to even a back stage movie scene. There were three women holding their dresses up in front of them loaded with Quinces. Wearing no petticoats they were placed in an embarrasing position by this inquisitive settler, who enjoyed their perplexities, particularly when one turned her back on him and another sat down. Questioned as to why they were stealing his fruit the women seemed too shocked to reply. The settler was satisfied they had been punished sufficiently, so took no further action.—"Murrumbidgee Irrigator."

* * *

In the last issue of the "Fruit World" the above story was told in different words. However, the proceedings inspired the "Fruit World's" poet, after reading "Excelsior," to write the following:

"Somefungalore."

Or

"Getting on His Quince."

The shades of night were falling fast
As through a Leeton village passed
Three maids demure and ultra coy,
Whose mien revealed they'd e'en enjoy
Somefungalore.

So, humming soft a jazzy lay,
Along the grassy bordered way,
The maidens left the town behind,
Conjecturing if they should find
Somefungalore.

Before them stretched on either hand
Inimitable orchard land,
Where, wrapped around by sable night
Adventure lay but out of sight
Somefungalore.

Then swift upon their sense of smell
Rich, fruity odors came to tell
Of Quinces ripe that hung close by,
All silhouetted 'gainst the sky,
Somefungalore.

The maidens eager shook the trees
And with their skirts above their knees,
They "shook" a Quincely harvest rare,
They felt that they were having there
Somefungalore.

As they bore off their fruity load,
The owner motored down the road,
His headlights blinked and so did he
To see so far above the knee,
Somefungalore.

They'd got his Quince! He asked them, "Why?"
The maidens shocked make no reply,
To facts so bare! So they were glad
When he drove off—because HE'D had
Somefungalore.

—A.E.

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Market Garden Notes

(By H. V. Barnett, President Market Gardeners' and Fruitgrowers' Society.)

BLACK-LEG is very prevalent in the growing crop of Cauliflowers and Cabbages, and there is a definite shortage in the early plantings: this disease is due to the bark on the stem of the plant being damaged either by heat or contact, and, is often done in the plant bed, sometimes after the plants are put out. New seed is more subject to this type of disease than seed that is two or more years old.

The Pea mite is again making his appearance. You will generally find this pest shows up after the first cold weather in the autumn, but this pest can now be dealt with satisfactorily with the powders that are on the market.

The Gardeners' Committee met recently, and again discussed the price of excess water charged to the producer by the Metropolitan Board of Works, and we are proposing to approach the Government on this matter if no relief is given. We claim to be one of the few bodies of producers who have not asked or received assistance from the Government, and our growers are finding the strain too much with the low returns received for our products, but our members would prefer to battle through themselves, if given the opportunity to reduce our costs.

The Market Gardeners' Picnic, held recently at Queenscliff was the 50th anniversary of this picnic. About 1,800 people went down the bay by the "Weeroona," and had a most pleasant day. Twenty-four people, who attended the first picnic, were present. The Committee endeavoured to make this 50th picnic a memorable one, and a cup to the value of ten guineas was donated by T. D. Pratt & Co. for the winner of the Market Gardeners' Cup, the winner being F. Andrews, of Pakenham. Prize money for all races was doubled, and for married ladies no entry charge was made. At a later date the committee journeyed to Sorrento, dinner being provided at the Continental Hotel. Several toasts were honored, and special reference was made to the pioneers of the picnic, notably Mr. G. Brownfield, who had not missed a picnic; Mr. G. Stayner, who had missed only two, and Mr. W. Mock, who also had missed only two.

Cabbage Moth

How to Prevent Damage to Crops.

THE ATTENTION of cabbage growers is directed to the necssity for taking measures against the cabbage moth, the grub of which often causes severe damage during April and May (states the N.S.W. Dept. of Agriculture).

The slender greyish moths which may be seen flitting about the cabbages lay very small yellowish eggs, usually on the under-surfaces of the leaves. From these eggs hatch the small green caterpillars which chew the holes in the leaves and are responsible for the damage that occurs to the plant. The caterpillar feeds on the plant for two or three weeks, and then spins on the foliage a delicate lace-like cocoon, within which it transforms into the adult or moth.

Use Lead Arsenate Dust.

Treatment of the seed-bed is important, as cabbage moth infestation usually commences there, and considerable damage may occur. In addition, plants that are infested when transplanted are severely checked in growth, and are frequently unable to outgrow the infestation. Dusting with lead arsenate both in the seed-bed and after transplanting gives excellent control of the cabbage moth caterpillar.

Seed-beds should be treated at least once a week at this time of the year. After the plants are transplanted treatment should be continued at intervals of a week to ten days until they commence to heart. For dusting cabbages and cauliflowers, lead arsenate is mixed with an equal part of inert filler. Kaolin is recommended as a filler in preference to hydrated lime.

When to Cease Dusting.

A 50 per cent. ready-mixed lead arsenate dust and dust guns suitable for treating small lots of cabbages, as well as the larger machines for commercial growers, may be obtained from the various firms that stock spray materials. Spraying with lead arsenate is not effective for cabbage moth control, as the waxy nature of the foliage prevents a satisfactory wetting of the leaves.

Owing to the danger to consumers, the use of lead arsenate must be discontinued as soon as the plants commence to heart, or four weeks before cutting commences.

Beans for Market

Variety and Manurial Trials.

EXPERIMENTS in the growing of Beans have been carried out by the Victorian Dept. of Agriculture, on the farm of Mr. H. Rowe, at Kalimna West. Plots were sown on August 19, with Pale Dun Beans, in rows 2 ft. 3 in. apart, one bushel of seed per acre, in typical light soil.

The Superintendent of Agriculture, Mr. J. Brake, in a recent report, stated that Canadian Wonder, because of susceptibility to bacterial wilt, was being replaced by Pale Dun. Feltham's Prolific also had wilt-resistant qualities: these two varieties, however, brought less on the market than Canadian Wonder. Variety trials yield the following results (per acre):—Pale Dun, 4,487 lb.; Feltham's Prolific, 3,451 lbs.; Sutton's Satisfaction, 2,512 lbs.; Miss Martin's Main, 2,402 lbs.; Early Glory, 2,091 lbs.; Canadian Wonder, 1,809 lbs.

The increased yields were due mainly to resistance to bacterial wilt.

Tests With Manures.

The following shows the result of trials with manures:—

Plot.	Yield of Green Beans.	Increase over Check. Super. 1 cwt. an Acre.
	1 lb. Ac.	1 lb. Ac.
No manure	2,327	†650
Super. 2 cwt. per annum	4,676	*1,025
Super. 3 cwt.	4,350	*870
Super. 1 cwt., plus sulphate of ammonia ½ cwt.	4,948	*990
Super. 2 cwt., sulphate of ammonia 1 cwt. .	5,024	*1,226
Super. 3 cwt., plus sulphate of ammonia, 1 cwt.	5,955	*1,679
Super. 1 cwt., sulphate of ammonia, ½ cwt., sulph. potash ½ cwt. .	4,877	*1,115

†Decrease *Increase.

Plots having a heavy application of superphosphate, suplemented by a dressing of sulphate of ammonia, gave highest yields. For four years the best average yield was from the plots treated with 3 cwt. of superphosphate and 1 cwt. of sulphate of ammonia per acre,

and the next highest yield from plots receiving 2 cwt. of superphosphate and 1 cwt. of sulphate of ammonia.

ITALIAN VEGETABLE GROWERS OUST CHINESE IN N.S.W.

The southern Europeans are slowly but surely dominating the vegetable industry in N.S.W., and the ranks of the Chinese gardeners are ever diminishing. The first signs of the economic struggle between these groups of rival market gardeners became apparent ten years ago, when large numbers of Italians and Maltese took up land on the outskirts of Sydney. They bought low-lying land at low prices, and made it productive. The fact that they were able to bring their wives and families with them, helped considerably, and it is this factor that has enabled them to break down the Chinese opposition. The Chinese not being able, owing to restrictions, to bring their families from China, have had to employ labor at high rates. This has proved too much for them, and many have gone back home. In the Ryde district in 1929 there were 40 Chinese gardeners—to-day there are only five. The same decline applies to other districts, and the time is apparently not far distant when the Chinese gardener of Sydney will be a rarity. Many city chinese, who were dependent for trade with their market gardening compatriots, to make a living, have returned to China.

BROWN VEGETABLE WEEVIL. (Listroderes obliquus.)

The stout, greenish-white, legless grubs of the brown vegetable weevil attack most winter vegetables, and sometimes occur on early Tomatoes and Potatoes. Towards the end of winter the grubs transform into the adult beetles, which during September, October and November, cause severe damage to Tomatoes and Potatoes. The pest breeds on many of our common weeds, particularly Cape Weed and Marsh Mallow.

On turnips, Carrots and Beetroot, the grubs of the brown vegetable weevil may be controlled by dusting with arsenicals. Lead arsenate or calcium arsenate powder should be mixed with four parts of hydrated lime or kaolin. These 20 per cent. arsenical dusts are obtainable ready mixed. Spraying with lead arsenate (2 oz. to 4 gallons of water) may be used as an alternative method of control.

If, owing to an outbreak of the grubs during winter months, an area has to be replanted, the remains of the previous planting should first be cleaned off the ground, and two or three days later chopped-up Lettuce or Turnip leaves, or even Capeweed or Marsh Mallow, poisoned with lead arsenate should be scattered over the area late in the afternoon.

Arsenical dusts or sprays are used to control the adults when they appear in the spring on Tomatoes and Potatoes.

CUTWORMS (Noctuida).

At this period of the year cutworm damage frequently occurs when Cabbage and Lettuce are transplanted. A poison bait, consisting of Paris green, 1 lb., bran 24 lb., water 3 gallons, and salt 8 ozs., is effective.

Mix thoroughly the Paris green and bran, then make into a crumbly mass even when grown in the same orchard, been dissolved. Scatter the bait along the rows, or broadcast it through the crop late in the afternoon.

Cutworms are the caterpillars of moths, which lay their eggs in weeds and grass, and it frequently happens that the eggs have hatched and the caterpillars are present in the soil when the crop is planted. Where cutworms are known to be numerous the bait should be broadcast over the area several days before the crop is planted. It should be remembered that the bait is poisonous, and must be kept out of reach of stock and poultry.

Where field crops such as Wheat, Maize and Lucerne are attacked, the bait should be broadcast at the rate of 15 lb. per acre.

MUSHROOM GROWING

(By R. Mas, Sydney.)

WITH the publishing of this article, I bid farewell to the great number of readers, who have sincerely shown their appreciation.

Mushrooms can, and will, become as common as Potatoes, if the general public cares to do it. All that is necessary to have Mushrooms growing on your lawn, is to bury the spawn in the ground in lumps the size of a fowl's egg, or larger, and forget that you have planted anything at all. Nature will do the rest.

The quantity of Mushrooms growing on that lawn will increase each year; they will sprout up at the most unexpected periods.

The best localities are well-drained lands, and the fact that a lawn has to be cut and walked on, will make no difference. Spawn can be planted at any time in the year, but this method is no good for commercial purposes.

The spawn, within a few days after it has been planted, becomes active, and if, when placing the soil on top of the bed, too much convulsion is caused, it will retard the growth of the mushrooms.

The moisture of the casing soil is not a true indication of the moisture content of the bed. Assuming that soil containing 50 per cent. of water, dries within two days if placed on the floor, it would take that soil ten times longer to dry, once it's on the top of the bed. This is due to the moisture that escapes from the bed, passing through the soil, and when that soil becomes dry, so is the bed dry. When the soil is placed on the bed it should be moist, and should be kept in that condition by light sprinklings of water. But not so much water as to further increase the original moisture contents of the manure

To know how much moisture is escaping from the bed, place a wet towel one foot from the ground alongside the bed, and each time it dries, sprinkle it with water until it is wet again. In proportion to the size of the towel, do the same to the bed.

A mushroom is 75 per cent. water, and if the bed is partly dry, it will not produce so much as it should, simply because it has not the water to produce the mushrooms. If it is too wet, the spawn will not work, and will die.

If foreign fungus is in the manure, the crop will be small, due to the food values being shared by more than one An average mushroom weighs 3 ounces. If by pulling them out, you destroy 100 baby mushrooms, the loss incurred is the weight of those mushrooms, and not their number.

If a mushroom is cut, the stalk left in the ground will rot and turn into maggots, and other undesirable matter.

If the temperature of the bed shortly after it has been made rises to 90 deg. F. or more: the bed will dry, and it indicates that the compost was not sufficiently fermented. The temperature of the compost heap is to remain at 110 deg. F. for a few days, before it is ready for the bed.

Seaweed, if fermented the same as the manure, is good for mushroom growing.

A dead mushroom on the bed will affect many others, so don't leave it there.

If you pick 100 lbs. of mushrooms, remember you have taken 75 lbs. of water from the bed, and this is to be replaced, but not all at once. If one bushel box is filled with mushrooms, they will become hot in five hours. Use flat boxes, say half bushel or less.

One rat in three months will do £3 damage, and one trap costs 6d.

Experiment by all means, but do not apply the experiments on all your beds.

If the cold weather slows the growth of the mushrooms, put some fire in a kerosene tin, and take a walk around the room.

All queries on mushroom growing will be answered through this paper. And if addressed to the writer, enclose a stamped addressed envelope.

Electric Hotbeds Hasten Plant Growth

MANY GARDENERS throughout the world are using electricity in different ways, but it is only recently that electric hotbeds have come into general use. In Sweden and Norway they are being used extensively, and in Holland, where horticultural practises are so well developed, there is a commercial hotbed covering an area of 170,000 square feet, the largest ever built.

In a large nursery near Berlin, an experimental hotbed was set up, and startling results in the growth of plants, as compared with those grown under ordinary conditions, were observed.

A pit was dug in the ground, and at a depth of about five feet, the electric heating wires were sheathed in ducts, laid a few inches apart. The walls were boarded in, and a glass roof was inclined over the top. The wooden walls act as a heat insulator, and tend to keep the heat in and the cold out.

In America the practice is carried out in a different manner. Here, the plants are raised in an ordinary glasshouse, with alterations made to the seedling beds. The seedling trays, at least six inches deep, have a fine wire mesh bottom, instead of the conventional wooden base. This is to allow the heat to reach the roots of the plants with as little loss as possible. The hotboxes which carry these trays are made with double wooden walls separated a few inches, and this space is packed with charcoal, which is a good heat insulator.

The heating wires are wound on a frame, and looks like an oversize toaster, and can be slid into a recess about four inches under the seedling trays. These elements are removable for inspection and adjustment. A thermostatic switch is provided, which cuts off the power when a predetermined temperature is reached. In a typical bed, a heating element, consuming 300 watts, supplys sufficient heat for about 22 square feet, which area, of course, varies with the degree of temperature required.

Hotbeds were invented to improve on nature, and to force fruits, flowers, and other plants to attain maturity ahead of those planted in the garden or field. Manure is generally used as the source of heat supply, and a temperature of 90 degrees may be reached due to the chemical action as it ferments. This method is likely to become costly with the decadence of the horse, and the heating cannot be controlled as in an electric hotbed. The manual labor expended in building manure beds is considerable, and it has been found that the results are not so rapid or effective as the electric type.

In extremely cold weather, the thermostat is set slightly higher, and a chimney is fitted to the box, so that some of the heated air at the base of the trays can be directed over the top of the plants, thereby preventing losses due to frost.

Although these new methods are used mostly for vegetables and other market produce, they have been successfully applied for flowers and striking cuttings. Excellent results were achieved with Poinsettia cuttings, which were taking six months to flower for the Christmas season. Three months after some cuttings were planted out in the open, an electric bed was started, and the cuttings were bleeding less and healing faster. Both beds of plants bloomed at the same time, and there was a loss of 25 per cent. in the first bed, but not even a withered leaf in the one with the "electric mattress."

At Woolwich a large firm of electrical manufacturers tried an experiment with three types of seedling beds. One was an ordinary bed open to the weather. The second had electric heating six inches below the surface, but the top was exposed to the weather, while the third was similar to the second, except that the bed was covered with a glass frame.

The results proved that the latter bed was best. The time of germination was as follows:—

	Hot Frame Glass Covered. Days	Open Bed Heated. Days.	Open Bed Normal. Days.
Runner Beans	5	12	15
Cabbage	7	11	15
Turnip	3	5	6
Onion	8	13	15
Lettuce . . .	3	7	8

These results only represent purely temperature effects, and, after a fortnight, the Runner Beans, for instance, were over a foot high in the hot frame, three inches above the ground in the heated bed, and barely above the ground in the normal bed.

The heat simply warms the soil enough to hasten germination, and prevents cold feet. This creates an artificial spring season, and the seedlings grow rapidly, and are healthier than those grown under normal methods. The plants have been found to root stronger, and the decrease in mortality is one of the great advantages of this new type of hotbed.—"GARDENOZ."

—Joslyn, S. Australia.

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TRADE WITHIN THE EMPIRE

EMPIRE PRODUCERS' CONFERENCE . . . IN LONDON ON JUNE 11

Preliminary Report from Mr. G. W. Brown

Early Australian Fruit Immature and Pitted.

IN THE MIDST of unprecedented world conditions, Australian fruit producers were wise in their decision to send a representative to England during the present season of export of Apples and Pears.

In Mr. G. W. Brown, the Australian Apple and Pear growers of Australia have a capable representative.

The Empire Producers' Conference is being held on June 11, when all sections of the Empire will be represented.

One of the major matters will be the consideration of a closed period on the British market against foreign fruit: in arriving at this a method will have to be devised to protect the position against cool-stored foreign fruit.

In a preliminary report to the president of the Apple and Pear Export Council, Mr. Brown stated:—

If we, by more orderly marketing in every way, can maintain a strong and vigorous market at a reasonable level throughout our season, and then hand that on to the British grower, we shall have done our best for him. But, if that market is unduly depressed at any time by the presence of unwarrantable quantities of U.S.A. fruit, we can't give the Englishman a strong market, and he will suffer, as much as we do. Canada and New Zealand accept this, and we are going to put it as strongly as we can. The New Zealand storage programme last season was very harmful to the home producer.

The other vital point that is showing desperately this year is the arrival of immature fruit. It is no use pretending the first boat fetches the high price. A little good fruit on the early boats does fetch a high price, but the bitter pit this year is very bad—and the lack of color and general immaturity is shocking. This does not apply so much to Victorian fruit, which is turning out best this year. There are very large parcels of U.S. Winesaps and Newtowns still available, and still some afloat.

I think the market is quite reasonably strong for good stuff, but shrivelled, poor colored and bitter pitted stuff will kill anything. No doubt the bitter pit is largely due to the hot summer, but it is essential we get decent enquiries made as to how to eliminate the risk of it — particularly for our Cleos,—though this year it is showing

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in everything, and whole cargoes are badly affected.

We shall have to consider the early shipment problem very carefully. There is a splendid early demand for good fruit, but arrivals like this drive the buyers back to Winesaps, etc., immediately.

The question of the application of the high Swedish tariff on May 1 is one which nobody understands. Various representations are being made, through the Foreign Office, etc., but the question is, I think, rather an important one. It practically precludes us from using that market. There appears to be no reason why May 1 should be chosen as the date on which to apply the higher tariffs—it cannot be to protect the home grower there—his Strawberries are not in until July, and so, after considerable thought and discussion with Australia House and the trade, I am going to Sweden to make unofficial enquiries, which may assist the preparation of the case against the tariffs here. I feel we cannot afford to let a market of even only 100,000 cases go at present if it can be saved.

Continuing, Mr. Brown deals with the matter of British outports, limitation of receivers, collection of claims, uniform insurance policy.

It is certain that Mr. Brown's mission is fraught with great significance for Australia, and further information will be awaited with interest.

Hull.—We have received a brochure from the London and North Eastern Railway showing the advantages of shipping to the Port of Hull, among them being the important geographical position Hull occupies in relation to the Continental trade. Hull has facilities such as the modern King George dock, the Fruit Merchants' Club, rapid discharge and quick dispatch, etc. Another advantage is the large area of distribution which is inhabited by 13,000,000 people. Express trains are provided by the London and North-Eastern Railway to carry the fruit direct from the point of landing and sale to inland destinations.

Fruit Prospects in U.K.

English Importer Urges South Africa Not to Extend in Apple Production.

Heavy American Supplies Reduce Prices in London.

DURING the visit to Australia of Mr. Dan Wuille (fruit importer, of London), the "Fruit World" invited him to express his views on current affairs. Under date, April 6, 1934, Mr. Wuille writes, as follows from London:—

"I found in South Africa the Apple growers there had been quite successful, because of the high prices paid on the local market for this produce, and for this reason a good many growers were inclined to extend their cultivations. I found, however, that the present production was sufficient to fill local requirements, and, therefore, owing to the enormous quantities being produced in Australia, **I felt constrained to discourage production, except in those districts where early varieties can be produced, which would not clash with the Australian production.**

"As regards prospects for this season, at the present moment they are not very encouraging here, owing to the huge quantity of American Apples which are still coming in, and which are selling at very low prices. During my visit to Australia I was impressed with the fact that your crops were heavy, and therefore we arranged to market all our Apples from America early, before your produce could reach this country, and if similar steps had been taken by other firms the present over-supply would not have occurred."

FRUIT SHIPMENTS FROM VICTORIA.

The Victorian Department of Agriculture have issued a statement showing the shipments of fresh fruit to U.K. and Continent for the week ended May 26, 1934, as follows:—May 22, "Mongolia," to London, 3,025 cases Apples; May 26, "Autolycus," to Liverpool, 3,321 cases Apples; "City of Canberra," to London, 6,912 packages Pears. The total shipments to May 26 were as follows: London, 351,394 cases Apples, 214,832 pkgs. Pears, 6,216 pkgs. Plums, 967 pkgs. Grapes, 32 pkgs. Passionfruit; Liverpool, 83,475 cases Apples; Hull, 81,003; Glasgow, 32,548; Hamburg, 99,747; Bremen, 6,186; Rotterdam, 46,336; Antwerp, 31; Dunkirk, 18; Oslo, 6. These figures make a total of 700,744 cases Apples, 214,832 pkgs. Pears, 6,216 pkgs. Plums, 967 pkgs. Grapes, and 32 pkgs. Passionfruit. The estimated export of Apples and Pears to May 26 was 1,089,470 cases.

A correspondent states that show committees should eliminate from their schedules most of the varieties which are no longer exportable.

New Zealand Apples are now permitted entry into Australia, provided they come from districts free from fireblight.

American tests prove that a large proportion of the very small spray residue on Apples is isolated on the stem and calyx ends, which are usually not consumed.

AUSTRALIAN FRUIT ABROAD.

Sales in England and Germany.

London Fruit Prices.—Major H. Dakin, Australian agent for Geo. Monro Ltd., London, advises having received cable advice from Geo. Monro Ltd., on May 21, as follow:—"Orsova," "Somerset," "Cortona," Apples generally good condition. "Ceramic" rather forward, some improvement in Apple market and prospect brighter. Jons., King Davids, Pearmains, 6/6, 8/6; Cox, if good, 17/-, 20/-; G. Smiths, 11/-, 14/-; Dunns, 9/-, 11/-; French Crabs, Cleos., 8/6, 10/6; Alfristons, 9/-, 10/6; Duke of Clarence, 8/-.

Pears.—"Cortona," "Ceramic," Pears generally good condition, market firm. W. Cole, Bosc, cases, 12/-, 16/-; Packhams, 12/-, 14/-; Cap., 10/-; Vicars, 10/-, 11/-; Comice, trays, 8/-, 10/-; Jos., 3/6, 4/6; Nelis, 4/-, 5/-.

Liverpool (18/5/34). — Apples, ex. "Royal Star"—Tas. Cox's, 12/- to 13/- per case; Alf. and Cleos., 8/- to 10/6; Crabs, 9/3 to 10/9; Dunn's, 7/9 to 10/-; Londons, 8/9 to 9/6; others, 7/6 to 9/-; Vic. Granny, 14/-; Dunn's, 8/9 to 9/6;

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"The Fruit World," Box 1944 G.P.O., Melbourne.

Londons, 8/- to 9/3; Romes, 8/3 to 9/-; Jons., 7/- to 9/3.

Hamburg (18/5/34). — Apples, ex. "Port Adelaide"— Sth. Aust. Cox's, 8/- to 11/-; Dunn's, 7/9 to 12/3; Jons. 7/- to 8/6; Romes, 7/- to 8/9; Vic. Cleos., 7/3 to 10/-; Dunn's, 7/- to 12/3; Jons., 4/- to 8/9; Romes, 6/3 to 8/6; others, 5/- to 9/6; Tas. Cleos. and Dunn's, 5/6 to 11/9; Jons., 5/6 to 8/-; Cox's, some of which were pitted, 2/6 to 14/-; others, 5/6 to 10/3. Tas. Pears: Boscs., 11/6 to 15/6; Comice, 7/3 to 16/9; Anjou, 11/6 to 17/-; Winter Coles, 7/9 to 12/6.

Port Chalmers' N.Z. Jons., 7/9 to 10/-; Cleos., 10/6 to 11/3, and Dunn's, 8/- to 10/3.

Sydney Market.

MAY, 1934.

No improvement in trading can be reported for the month just passed, and the volume of business was below the average for May. Pears were in very light supply, and in consequence values were maintained at rates higher than for some years. Pineapples also became scarcer as the month advanced, and prices moved up, but not to the level obtaining previously in times of light supplies.

Apples.—Although consignments from other States were not heavy, compared with other seasons, the reduced demand was not sufficient to clear stocks. The enquiry for cold storage space was so consistent that early in the month all available space had been taken up, and at the present time all Sydney cold stores are full. Jonathans were the most popular variety throughout the month, and values for choice lines improved. The condition of this variety is now falling off, and buyers for long distance orders are looking for other red varieties. There was also a fair demand for Cookers. It was noticed that a large percentage of French Crabs from Tasmania was of small sizes, and these could only be sold at low values. Rome Beauties were only in light supply, as were also Delicious from N.S.W., and the latter sold at good values. Grannies were being looked for by shippers at prices slightly higher than the previous month. Indications are that Romes, Delicious and Grannies will all move up in the next few weeks.

Bananas were in fair supply throughout the month, and with the quiet demand, values eased, and are now lower than usual for this time of the year.

Grapefruit.—Arrivals increased each week, and with light enquiry stocks are mounting up, and prices, which at present are not high, are likely to come back further.

Grapes. — Crops are now practically finished. Prices were not satisfactory at any time. Export trade in Ohanez was also lighter than usual.

Lemons.—With the colder weather, the demand fell off considerably, and with heavier consignments prices fell off, and look like keeping down for at least another month. Factories are now commencing to operate.

Mandarins.—Imperial and Thornies were available in fair quantities, and sold at reasonable values. Only a few lines of well-colored Emperors have so far been marketed, but supplies can be expected to increase daily from now on. Poorly colored fruit has been almost unsaleable.

Oranges.—Navels were in heavier supply, while the demand was poor. The marketing of Thompson Navels in fair quantities at this time of the year seems to be always followed by a falling off in consumption. The majority of Thompsons are raggy, and lacking in juice content. The Siletta also is not a sweet Orange, and is being marketed at the same time as the Thompson. Both Oranges are showy and attractive to the buyer, but the result is a falling off in trade. Washington Navels were in fair demand, but prices were below the average.

Passionfruit.—Demand was fair, and, with lighter supplies, values moved up for choice lines. Inferior fruit was not wanted.

Pears.—Supplies were light, and not equal to the demand, and in consequence values for choice lines held up throughout the month. Reports from all States indicate that supplies are light, and if so, prices will not come back.

Pineapples.—Arrivals fell off during the month, and values moved up, and should hold until the new winter crop comes to hand, when prices can be expected to fall. Enquiry was only fair.

Export of Oranges.

A small shipment of Navels and Lemons were sent to Canada per the "Niagara" on 24/5/34.

The first export shipment to the U.K. will be leaving Sydney by the "Ascanius" on 5/6/34. Provided the weather does not interfere, about 5,000 cases will be shipped. This will be followed by regular shipments of about fortnightly intervals. It is anticipated that about 20,000 cases of Navels and Seedlings will be shipped, and already approximately 50,000 cases of Valencias have been booked for shipment in August and September. In view of the low values likely to be ruling on the local markets, it is possible that these quantities will be increased.

—P. S. MacDERMOTT,
Sydney, 28/5/34.

NEW SOUTH WALES.

Sydney (28/5/34). — The market representative of the Fruitgrowers' Federation of N.S.W. (Mr. L. T. Pearce), reports as follow:—Apples: Cleo. 3/- to 6/-, Del. 5/- to 12/-, French Crab 3/- to 6/-, Geeveston Fanny 3/- to 6/-, G. Smith 6/- to 10/- (plain grade 4/6 to 7/-), Jon. 4/- to 8/-, few 9/-, L. Pippin 3/- to 6/-, R. Beauty 4/- to 8/-, Scarlet Pearmain 3/- to 6/-, Tasman's Pride 3/- to 5/6. Plain grades lower. Pears: Glou Morceau 5/- to 8/-, Jos. 6/6 to 9/-. Packham's T. 6/- to 10/-, W. Cole 6/6 to 10/-, W.N. 6/- to 8/6, Plain grades lower. Approximately 44,000 cases of Apples are arriving from Tasmania today. The 2¾ sized colored Apple continues in demand with smaller sizes very difficult to sell.

Bananas: N.S.W. and Qld. 10/- to 18/- trop. case, Fiji 12/- to 18/-, Norfolk Is. 7/- to 12/-.

Custard Apples, Qld. 4/- to 5/- half bush. Citrus: Grapefruit, N.S.W. local 5/- to 8/-, large colored to 9/-; Lemons, N.S.W. local colored 2/- to 6/-, inland colored to 7/-. Navels, N.S.W. local and inland 3/- to 6/- bush. Siletta 1/- to 2/6, few higher per bushel. Mandarins: N.S.W. Thorny 2/6 to 4/- half, Imperial Emperor colored 4/- to 6/- bush. Qld. 7/- to 10/- bush.; Passionfruit: N.S.W. 2/6 to 10/-. Papaws 8/- to 12/-, colored to 14/-. Persimmons 1/- to 2/6 half. Pineapples (Qld.) 10/- to 16/-. Tomatoes (N.S.W.) inland 3/- to 5/- half, special colored to 6/-. Mangrove 3/- to 8/- half, few 9/-, repacked 6/- to 8/- half; (V.), Portland 3/- to 6/- bush.; (Qld.) Bowen 3/- to 6/-, special 7/-.

VICTORIA.

Melbourne (30/5/34).—The demand for fruits in general was slightly brisker yesterday. Apples had steady sales, and all inclined to rise in price. Quotations (excepting where otherwise stated are at a bushel case):—Apples. — Eating: Jons. 3/- to 6/6, few specials 7/6; Del., 3/- to 6/6, few specials 7/-; Pomme de Neige, 3/- to 6/6; R.B., 3/- to 6/-; Statesman, 4/- to 6/6. Cooking: Five Crowns, 3/- to 5/6; G.S., 4/- to 6/6; other varieties 2/6 to 5/6. Custard Apples, 4/- to 5/- half-case; few specials higher. Persimmons, 3/- to 4/- half-case; inferior, lower. Grapes, 6/- to 10/-; few specials to 11/-. Oranges: Navel, Wash., average standards, including N.S.W. best counts, 6/- to 7/-, large from 4/6; Mildura and S.A., to 8/- and 9/-, unwrapped; specially selected wrapped Mildura and S.Aust., to 10/- and 11/-; Val., average standards to 6/-, best counts; selected unwrapped standards to 8/-; selected wrapped standards higher. Lemons: Good standard grades, best counts to 6/-, small from 3/-, and slow of sale. Grapefruit,

Marsh's seedless, best counts, to 7/- and 8/-; a few specials to 10/-; small Vic. lines from 5/-. Mandarins, Qld., Emperors, 8/- to 10/-; few specials, best counts, to 12/-; Vic. reds, 11/- to 12/-; N.S.W. to 9/- and 10/-. Papaws, 15/- to 16/- double case. Coconuts, 2/- to 3/- dozen. Pears: Culinary, 3/- to 7/-; few specials higher; dessert, 3/- to 7/-; few specials higher. Quinces, 2/- to 4/-. Bananas: Q'ld., green, 6's, 10/- to 11/-; 7's, 12/- to 14/-; 8's and 9's, 14/- to 16/- double case; rust affected lower. Pineapples, 10/- to 18/-, double case. Passionfruit, 5/- to 10/-. Tomatoes, 4/- to 8/-, few specials higher. Celery, Adelaide, 8/- to 10/- double case; inferior lower.

The following prices are supplied by the Wholesale Fruit Merchants' Association of Victoria, the quotations being at per case, excepting where otherwise stated:—Apples.—Eating, 3/- to 6/-; cooking, 2/6 to 5/-; some selected varieties higher. Bananas (a double case): Green, 8's, 9's, 14/-, 15/-; 7's, 12/-, 13/-; 6's, 10/-, 11/-. Celery, 7/-, 9/-, few special lines higher. Custard Apples, 5/-, 7/- half-case. Grapefruit, 5/-, 8/-, few specials higher. Grapes, 4/-, 8/-, few special lines 1/- to 2/- higher; Lemons, 3/-, 6/-. Mandarins, 8/-, 10/-. Oranges: Navels, 5/-, 9/-; special lines higher; Vals., 3/6, 7/-; commons, 4/-, 5/-. Passionfruit, 5/-, 9/-, special lines higher. Pines (a double case), 10/-, 16/-. Pears, 4/-, 7/-, some special varieties higher. Persimmons, 2/-, 4/- half-case. Toma-

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132 So. Mission St., Wenatchee, Washington, U.S.A.

toes, 4/-, 8/-, special lines higher. Papaws (a double case), 15/-, 16/-.

The Melbourne market manager of the Federal Citrus Council of Australia reports sales were as follow: — Navel Oranges, average standards, including N.S.W., 4/- to 6/-; selected standards, to 8/- and 9/-, best counts; specially selected wrapped, 10/-, best counts; a few higher. Grapefruit, best counts, 60-68, to 7/- and 8/-; 75-84, to 7/-; 96, 6/-; 112, 5/-; large from 6/-. Lemons, good standards, well-colored, to 6/-, best counts, 180-225; 300 counts, slow, from 3/-. Vals., average standards, 3/6 to 6/-. Mandarins, N.S.W., Emperors, best counts, 160-192, to 8/-; 258-274, 7/-; 300, 6/-; Q'lands, to 10/-; a few special full-colored Vic. higher.

SOUTH AUSTRALIA.

Adelaide (25/5/34).—Apples (eating), 3/- to 6/- case, do. (cooking), 3/- to 4/-; Bananas (Q'ld.), 16/- to 20/-; Lemons, 5/-, Oranges (common), 5/-; do. (Navel), 6/- to 8/-; Passionfruit, 20/-; Pears (eating), 5/- to 8/-, do. (cooking), 4/- to 5/-; Pineapples, 22/-; Quinces, 2/- to 3/- case.

BRISBANE.

Messrs. Robsons Pty. Ltd., Brisbane, report as follows, on May 19:—

Our present Stanthorpe season is drawing to a close, excepting in the case of Granny Smiths, and late varieties of vegetables, such as Cauliflowers, etc. Stanthorpe Grannys have maintained steady levels this season, consignments that are now coming forward being cleared freely at 10/- for choice quality, with prospects of a slight increase.

This season's local Citrus crop has started with sales not as brisk as desired, this applying more so to Oranges, but as the eating qualities of these is improving daily, regarding sweetness, we expect sales to take on a firmer tone in the near future. Mandarins at present selling to 11/- and Oranges from 4/- to 6/-, Navels realising to 9/-.

Although the early varieties of Tasmanian Apples, such as W.P's., etc., did not meet with a very strong market, the Jonathans that have come to hand have been cleared at satisfactory rates, this also applying to Victorian Jonathans.

Pears have been, and are still in strong demand, the quality of same this season being excellent, prices being realised to 11/-. We anticipate that these firm rates will still be maintained.

We would like to stress that it is desired that more fruit from Tasmania be shipped direct to Brisbane this season, instead of being transhipped at Sydney. This would mean that fruit would be saved that extra handling, and thereby enhance a better condition on arrival here.

QUEENSLAND.

Brisbane (25/5/34). — Pineapples, smoothleaf 2/- to 9/- case, roughleaf 2/6 to 4/6; Lemons, 3/- to 6/-, Southern 3/6 to 6/-, few to 7/-; Gayndah, 5/- to 7/-, Oranges 2/- to 3/6, few at 4/-, Gayndah 3/- to 4/5; Navels 3/- to 7/6, N.S.W. 3/- to 5/-, Gayndah 6/- to 7/-, Benyenda 6/- to 7/6; Mandarins, Emperor 1/6 to 4/-, Scarlet 1/6 to 4/-, few higher, Fewtrells 1/6 to 3/-, Gayndah Scarlett 5/- to 7/-, Glen 4/- to 8/-; Grapefruit, 3/- to 5/-, inferior lower; Passionfruit 3/- to 7/-, Southern to 10/-; Custard Apples, 2/- to 3/-; Papaws, 2/- to 4/- bush. case, a few special to 5/-; Yarwun 8/- to 10/- per one and a half bush. case; Apples—G.S., 7/- to 10/- bush. case. Imported Fruit: Southern Apples, Jon. 3/6 to 7/6, S.T.P. 4/- to 5/-, A.R.O. 4/- to 6/-, D.C. 3/- to 5/-, F.C. 4/- to 7/-, T.P. 5/- to 7/-, N.Y.P. 4/- to 7/-; Southern Pears, W.C., 10/- to 12/-, W.N. 9/- to 11/-, J.O.S. 9/- to 11/-.

WESTERN AUSTRALIA.

Perth (25/5/34). — Apples, Jons., dumps, plain and small 3/6 to 4/6, standard 5/- to 6/6, prime 7/- to 9/6; Dunn's, 2/6 to 3/-, 3/- to 4/6, 5/- to 6/-; R.B., 3/- to 4/-, 4/- to 5/-, 5/- to 6/-; Yates, 3/- to 4/6, 5/- to 7/- 7/- to 8/6; G.S., 4/- to 5/-, 5/- to 6/-, 6/6 to 7/6; Cleo., 2/6 to 3/-, 3/- to 4/6, 5/- to 6/- (special to 7/6; Del., 4/6 to 6/-, 6/- to 7/6, 8/- to 9/6; Doherty, standard, 3/-

SPECIAL NOTICE TO FRUITGROWERS

All Members under Fidelity Bond

In response to numerous requests from growers for information as to who are members of the

Wholesale Fruit Merchants' Association of Victoria

the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESIS.

T. STOTT & SONS (26).
H. L. E. LOVETT & CO. (23).
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J. DAVIS PTY. LTD. (8).
W. S. TONG (31).
SILK BROS. PTY. LTD. (24-25).
J. G. MUMFORD (35).
GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).
J. W. ROSS (13).
J. H. YOUNG & CO. PTY. LTD. (32).
H. M. WADE & CO. (21).
DAVID SMITH PTY. LTD. (3).
SILBERT, SHARP & DAVIES PTY. LTD. (17)
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R. CORNISH & SONS (5).
J. HYMAN & SON (51).
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FRANK BOOTH & SONS PTY. LTD. (16).
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TIM YOUNG & CO. PTY. LTD. (18).

GROWERS PROTECT YOURSELVES by consigning to members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.

J. D. FRASER, Secretary, 21 Wholesale Fruit Market, Queen Street, Melbourne. Phone F 4866.

Correspondence is invited by the Association.

to 5/-, prime 5/- to 6/-. Citrus: Navels, flats, 2/6 to 4/6 (special to 6/-), dumps 4/- to 6/- (special to 7/9); Lemons, 1/3 ot 3/- (special to 4/-); Mandarins, 6/- to 8/- (special to 11/6); Pears, all varieties, dumps 7/- to 11/-, dumps, prime to 14/-, standard 5/- to 9/- (inferior from 3/-).

NEW ZEALAND.

Dunedin (18/5/34).—Messrs. Reilly's Central Produce Mart Ltd., Dunedin, report as follows.—Apple supplies of all lines of fruit and produce are available, and we have pleasure in advising that both Niue and Samoan Bananas reached Dunedin in perfect condition. Unfortunately, fruiterers state the demand for Bananas is not at all brisk, which means restricted sales, possibly due to the fact that Pears and Apples are selling at particularly low prices. The public are fortunate, inasmuch as they are able to buy Bananas at less than cost price. There is a nice range of fruit of all descriptions, including Passionfruit, Grapefruit, Cape Gooseberries, Grapes, Rarotongan and American Oranges, N.Z. and American Lemons, Apples of all descriptions, and some exceptionally choice Pears, while Tomatoes are still coming forward from the local nurseries in sufficient quantities for all requirements.

Prices (half-cases).—Passions, N.Z., 6/, 8/-; dessert Pears, 1/-, 2/-; N.Z. Lemons, 13/-; Cape Gooseberries, 6/9. Bushel and American Cases: Apples, Cox's, 7/-, 9/-; Jons., 4/-, 6/-; Cleo., 5/-, 6/-; cookers, 3/6, 5/6; Del., 5/-, 6/-. Pears, Conference, 4/-, 5/-; W.C., 4/-, 5/-; Nelis, 4/-, 6/-. Cal. Oranges, 42/6; Cal. Grapefruit, 40/-; Cal. Lemons, 60/-; N.Z. Lemons, 22/-, 25/-; Bananas, Ripes, 17/6; Rarotongan Oranges, 18/-, 20/-.

PORT OF LONDON.

The Port of London is unique in that the authority (or directorate) relieves merchants of an immense expense and load of responsibility. It receives all produce from the vessels, and renders all the services required in the course of marketing and delivery of goods. Weighing, tareing, grading, surveying, sorting to quality and condition, blending, and hundreds of other operations. Samples are drawn, representative of the bulk, and such trust is placed on dock samples that transactions of great magnitude are effected on them without buyer or seller ever seeing the goods. Merchants, therefore, have no need to take their goods away until sold, when they can go direct to the buyers.

London, as the financial centre and the money market of the world, exerts a magnetic power in international trade.

THE CANNED FRUIT INDUSTRY.

Control Board's Policy and Growers' Production Costs.

(The Editor, "Fruit World.")

Sir,—In the Melbourne "Sun" of May 5, the chairman of the Canned Fruits Export Control Board, forecast the price of fruit at £7 to £8 a ton for next season.

It is regrettable that this Board, on which there is no fruitgrowers' representative, should have forecast prices at two-thirds the cost of production.

But the observant fruitgrower, instead of being discouraged, will, on the experience of the Board's previous forecasts, take heart and expect fair prices. He remembers the Board's "error of judgment" in 1933, in anticipating higher prices than the high prices available when the dollar was at 3.40, and refusing sales at competitive prices—result that the bulk of the pack, accumulating expenses, was held till 1934, till the dollar was 5.00 to sterling, and prices much less than when the pack was put on the market: thus growers in 1934 were offered £7 per ton for half their crop—£3/10/- average over a crop costing £10 a ton to produce.

In 1931 the Board held a large part of the pack to February of the following year, under practically the same conditions, then sold at considerably reduced prices. A leading Melbourne business man stated, through the press, he could dispose of the pack profitably: leading fruitgrowers pressed for sales to be allowed by their factories (who owned the pack) without success—result, growers got £5 per ton (half cost of production) for following year's fruit.

The Control Board was created to facilitate the sale of the growers finished products, thus providing a ready sale for each year's fresh fruits. It cannot be pointed out too strongly that another year like last,—with factories not allowed to meet Californian competition with 1933, and three-quarters of a million cases carried into 1934, and growers' prices £7 a ton for half of crop (a third of cost of production)—**must not occur again.**

Whether the grower gets this price rests on the Board's permission to the factory (the owner of the pack) to sell it as opportunity offers. Each year the Board has withheld this permission, the grower has had to produce the following year's crop for half his cost of production.

R. HUNT.

25/5/34.

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